EXHIBIT 1

IN THE UNITED STATES DISTRICT COURT

FOR THE DISTRICT OF DELAWARE

BECKMAN COULTER, INC.,
Plaintiff,
v.
CYTEK BIOSCIENCES, INC.,
Defendant.

C.A. No. 24-945-CFC

Thursday, August 21, 2025
12:58 p.m.
Markman Hearing

844 King Street
Wilmington, Delaware

BEFORE: THE HONORABLE COLM F. CONNOLLY
United States District Court Judge

APPEARANCES:

RICHARDS, LAYTON & FINGER
BY: CHRISTINE D. HAYNES, ESQ.
BY: FREDERICK L. COTTRELL III, ESQ.

-and-

APPEARANCES CONTINUED:

WILMERHALE
BY: OMAR KAHN, ESQ.
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MORRIS NICHOLS ARSHT & TUNNELL
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-and-

COOLEY LLP
BY: REUBEN CHEN, ESQ.
BY: ADAM PIVOVAR, ESQ.
BY: DUSTIN KNIGHT, ESQ.
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P R O C E E D I N G S

(Proceedings commenced in the courtroom beginning at 12:58 p.m.)

THE COURT: Good afternoon. Please be seated.

MS. HAYNES: Good afternoon, Your Honor. Christine Haynes on behalf of the plaintiff, Beckman

Coulter. With me from my office is Fred Cottrell.

Also with me are my cocounsel, Omar Khan and Jeffrey Dennhardt from Wilmer Hale, and from our client, Mony Ghose and Mike Levy.

THE COURT: All right. Thank you.

Ms. Jacobs.

MS. JACOBS: Good afternoon, Your Honor. Karen Jacobs from Morris Nichols for Cytek Biosciences, and we have here with us today Reuben Chen.

MR. CHEN: Good afternoon, Your Honor.

MS. JACOBS: Adam Pivovar, Dustin Knight, Betsy Flanagan, Rozzie Upton, all from Cooley.

And Mr. Chen Mr. Pivovar, and Mr. Knight will be taking the lead in the arguments today.

THE COURT: Okay. Great. Thank you.

Just give me a second.

Okay. Let's begin. Plaintiff, you guys want to go first?

MR. KHAN: Thank you, Your Honor. Omar Khan for plaintiff Beckman Coulter.

So this is a case as Judge, you know, about flow cytometers. And with the Court's indulgence, I'm just going to talk a little bit about the basic concepts just to flow into the rest of the claim construction, just for a couple of minutes.

So what we have on Slide 3 of the demonstratives, which I think we've handed up to the Court now, is sort of a conceptual drawing that's often depicted in textbooks or in treatises about the very high-level conceptual operation of a flow cytometer. And, essentially, you have a laser -- cells passing through a flow cell, and then the laser is hitting the flow cell, the cells in the flow cell, and there are dyes on the cells that then emit fluorescence or scatter that are then detected by the detectors.

And that's sort of a conceptual overview, like I said, that's often depicted or discussed in various treatises and textbooks and tutorials.

Here, in the prior art and commercial embodiments that were present at the time of the invention, flow cytometers were rather large and bulky. I don't know whether we are having some technical issues. We're good.

So were rather large and bulky, often took up half of a room, or third of a room. And one of the things that the prior art flow cytometers had was a photo multiplier tube. This was a detector agent, the detector all the way to the right of the conceptual figure that I had, Your Honor, at the beginning.

And the photo multiplier tubes were fragile,

they were large, and they were expensive. And this was a recognized problem in the industry at the time.

At the time it was also known that there were these smaller, more efficient, more sensitive detecters known as APDs, or Avalanche photodiode. And there was a problem in the industry of being able to -- not being able to use APDs in flow cytometers. And that's really one of the problems that the patents are trying to solve.

And what they do, and Dr. Chen invented, essentially the combination, a unique WDM, a wavelength division multiplexing scheme that, essentially, combines a WDM architecture with APDs where the light that comes in is peeled off in successive layers through this zigzag pattern. And there's also a picture of what became the ultimate commercial embodiment of the Beckman Coulter CytoFLEX products, which have been an incredible success in the marketplace.

Just to see what this looks like in practice, we have a short video. This is just a commercial video from the Beckman Coulter website that shows how the flow cytometer works.

So if we sort of zoom in and then open up the hood, what you have, essentially, is the -- this is the fiber that's coming from the flow cell. So light is

passing through here. These are the optical filters, these are the mirrors. And the APDs are back here, all the way at the end.

And each WDM has optical and detector components and this improves, as we have been talking about, the sensitivity.

The CytoFLEX was marketed as the first commercial flow cytometer that had advanced photo -- Avalanche photo multiplier tubes -- or APDs, sorry.

And, again, the idea was to peel back each of the wavelengths in successive intervals every time you go through the zigzag pattern. And on the video again, on the commercial website, we have a depiction of that as well.

So, again, the light is coming through from the flow cell. This is the zigzag pattern that's created. The light is bouncing around between the filters and the mirror. This is the mirror, and a curved mirror on this end. These are the filters. You can see on the back individual wavelengths of light are coming through and being detected by the APDs on this end.

And so this was the design that was one of the embodiments that was described in the specification. Very importantly for this case, and for the claim

construction proceedings here today, that embodiment was described very clearly as an exemplary embodiment, and it's described as illustrative and nonlimiting.

There's not going to be in this case a statement of the invention or a disclaimer or a definitional statement that's going to limit any of the claim terms here to that embodiment.

THE COURT: So would you agree that there is no preferred embodiment in the written description?

MR. KHAN: This is one of the preferred embodiments.

THE COURT: I thought "preferred" is you have one.

MR. KHAN: You can have multiple preferred embodiments in the --

THE COURT: Do you have any case law that says that?

MR. KHAN: I believe there is case law, and we're happy to submit it to the Court, if that would be of interest.

Usually, that's how the specifications, Your Honor, are structured, which is you have sort of a number of different preferred embodiments in the specification that are described and disclosed. And in this case, I think even in this patent, the word

"preferred" is used to describe a number of different disclosures and different embodiments.

THE COURT: Do you want to show me? You're saying in the written description itself, it refers to multiple embodiments as preferred?

MR. KHAN: So --

THE COURT: I don't think the word "preferred" is in the '582 patent, is it?

MR. KHAN: It's described sometimes as exemplary.

THE COURT: I know. But you said it was preferred. I mean, that's what you said.

MR. KHAN: Right.

THE COURT: When I do a word search of the '582 patent, the word "preferred" doesn't come up, but my search engine might be wrong.

MR. KHAN: I don't doubt, Your Honor, that the word "preferred" is not used.

THE COURT: Oh, okay. Well, I thought that was pretty important. So, actually, the patent doesn't identify the preferred embodiment?

MR. KHAN: It identifies a number of exemplary embodiments.

THE COURT: Right. So I heard that.

MR. KHAN: Okay.

THE COURT: Just answer my question.

MR. KHAN: Yes.

THE COURT: It doesn't identify a preferred embodiment, correct?

MR. KHAN: It doesn't use those words, but it's pretty clear, Your Honor, from the overall disclosure, that Figure 25 is being discussed and depicted as a preferred embodiment, if we can use that term. And there are exemplary embodiments, of which that is one, for sure.

THE COURT: But the case law, it matters, right? Case law distinguishes between an exemplary and a preferred embodiment, right?

MR. KHAN: Correct, Your Honor.

THE COURT: How does it do so?

MR. KHAN: I'm sorry?

THE COURT: How does it do so? You just said it does distinguish it. Tell me how.

MR. KHAN: One of the ways is that the claims can't -- of course, can't be limited to -- either to exemplary or preferred embodiments.

But in this case, Your Honor, I think what the Cytek is doing is essentially arguing that Figure 25 is the invention itself.

THE COURT: Put that aside. Go to the legal

point. You agreed, you said the case law distinguishes between preferred and exemplary. Can you tell me how it does?

MR. KHAN: I think -- you know, it's not exactly going to be sort of crystal clear in the case law, Your Honor, just to be honest.

I think the idea is that in the specification, there are going to be -- there are certain embodiments that are the focus of the specification that are disclosed as sort of what ultimately in this case became the commercial embodiment, right? And those might be viewed as preferred, even if they're not termed as preferred.

THE COURT: Let me ask you this, then. I'm not getting a real straight answer.

Are all the exemplary embodiments preferred embodiments?

MR. KHAN: I don't think we could go that far, Your Honor. Right.

THE COURT: Okay. So how do I tell the difference in the written description of the '582 patent what's a preferred embodiment versus what's an exemplary embodiment?

MR. KHAN: Yeah. Absent the use of the term "preferred" --

THE COURT: Well, we've already agreed the term "preferred" is not in there, right?

MR. KHAN: Right.

THE COURT: I mean, isn't that a starting point?

MR. KHAN: Yes. Yes, Your Honor.

THE COURT: Okay. So since the term "preferred" isn't in there and since you are saying there are preferred embodiments that are disclosed in the '582 written description, and since you're saying there's a difference between preferred and exemplary, tell me, what should I do when I read the '582 patent to discern what's a preferred embodiment versus what's an exemplary embodiment?

What do I do? How do I do that?

MR. KHAN: I think absent the use of the word "preferred," it would mostly be sort of how much of the specification is discussing the various embodiments, and Figure 25 is subject of a significant amount of discussion.

So I think it would be fair, even though it doesn't say the word "preferred," that it is a preferred.

For purposes of claim construction, the preferred embodiment, essentially, the claims can't be

limited to the preferred embodiment, they can't be limited to exemplary embodiments. For purposes of claim construction, sometimes, under some circumstances, there is case law that says the claims should be interpreted to encompass the preferred embodiment.

And so that -- to the extent it matters for the Court, that's the implication of preferred or exemplary. Usually that's the only -- that's one of the few implications of that outcome.

THE COURT: Hold up, please.

MR. KHAN: Yes.

THE COURT: I'm going to ask you to clarify. I mean, the transcript, which obviously we're doing it real time, so it may not be exactly right. The court reporter is pretty good, but it says you said, according to this transcript, For purposes of claim construction, the preferred embodiment, essentially, the claims can't be limited to the preferred embodiment. They can't be limited to exemplary embodiments. For purposes of claim construction, sometimes, under some circumstances, there is case law that says the claims should be interpreted to encompass the preferred embodiment, and so that to the extent it matters for the Court, that's the implication of preferred or exemplary.

No offense, but I still don't know what you

are saying.

MR. KHAN: Right.

THE COURT: So I want you to help me out.

So I understand that there's cases out there that say you can't interpret a claim to exclude a preferred embodiment.

MR. KHAN: Exactly, Your Honor.

THE COURT: Okay.

I don't know of a case that... and I'm asking. There might be one. Is there a case that says you can't construe a claim to not cover an exemplary embodiment?

MR. KHAN: There's not. I don't believe that there's that kind of a case, correct, Your Honor.

THE COURT: Okay. And how many claims do we have in this patent? I mean, we have a bunch of patents, so let's say the '582.

Fair enough, we have more than one claim for every patent?

MR. KHAN: That is correct, Your Honor.

THE COURT: Do we have more than one independent claim for every patent?

MR. KHAN: Yes, sir. Yes, Judge.

THE COURT: Okay. So then, why shouldn't I...

And you agree under the case law, this is

really clear, each claim is a separate invention, right?

MR. KHAN: Each claim is a separate invention that, in principle, could be directed to a different exemplary embodiment, yes.

THE COURT: Right. So if I have at least two independent claims for every patent, they are independent of each other, why should I be worried in interpreting one claim about whether I read or don't read out an embodiment?

MR. KHAN: Generally speaking, Your Honor, we shouldn't be worried about that.

THE COURT: Okay.

MR. KHAN: Right? And I think sometimes what we're trying to illustrate to the Court in the briefing, and we're going to do try to do today, is we're going to use some aspects of what we're now calling the most exemplary embodiment, if I can put it that way.

THE COURT: Oh, "the most exemplary." Okay. And that's Figure 25?

MR. KHAN: And that, I think, would be Figure 25.

THE COURT: And it's the most exemplary?

MR. KHAN: Well, I don't -- I am using that colloquially. I'm saying that that is an --

THE COURT: I don't even know what colloquial

means, in terms of patent construction, so...

MR. KHAN: Right. What I'm basically trying to suggest, Your Honor, is that Figure 25, we would agree, is the embodiment in the patent that is the subject of greatest discussion.

It is -- you're right, it is only described as an exemplary embodiment. The word "preferred" I don't think is in there.

But for our purposes, Your Honor, the claims don't -- should not be limited to any of the exemplary embodiments or to any of the preferred embodiments. And I think that's what we're saying.

And -- but there are -- you know, aspects of Figure 25 may be relevant to understanding particular claim terms and understanding how they should be understood in the intrinsic evidence in light of the state of the art.

THE COURT: Right. But it would be perfectly consistent with the case law for one claim, one independent claim to read on Figure 25 and for another independent claim of the patent to not read on 25, right?

MR. KHAN: That would be consistent with the case law.

THE COURT: That would be allowed?

MR. KHAN: That would be allowed in a -- it

would not impermissible in a multi-patent, multi-claim, multi-independent claim situation. There's no requirement that every single independent claim cover the preferred embodiment.

THE COURT: Right.

MR. KHAN: You are right about that, yes.

THE COURT: All right. So I can read the patent. I can read at least one independent claim in the patent to not cover Figure 25.

MR. KHAN: Yes, Your Honor.

THE COURT: Okay. All right. Go ahead.

MR. KHAN: And just to pick up on that point, you know, Figure 25 being described as exemplary and, you know, the -- there is this discussion about whether there can be convergence in the relay. The zigzag has a relay element.

And the patent expressly talks about how the concave mirror in the WDM can be used to converge and relay the beam of light.

So that is not a particularly -- you know, as far as we're concerned, right, there's no statement of the invention that would preclude the concave mirror resulting in a convergence as part of the relay.

And that's going to become important for a number of different terms as we go down the patent.

So in terms of the disputed claim terms, we have nine sets of disputed claim terms. From our perspective, Your Honor, each of the terms is either a, you know, straightforward term, word that a jury could mostly understand, first and second portion, image.

And then the other terms, what they are seeking to --

THE COURT: Why don't we wait see if we can --

MR. KHAN: Sure.

THE COURT: -- figure this out, the technical glitch out.

MR. KHAN: Maybe I should stand over here.

THE COURT: Okay.

MR. KHAN: Okay. And then the other terms are terms that comprise one, two, or three words, essentially, in each instance, in our view, are used in the industry in the science in a particular way. They're standard terms that are used in the intrinsic evidence in exactly the same way.

As I've said already, there's no statement of the invention that would limit these terms. There's no disclaimer. There's no definition that would limit these terms.

And as a result, what Cytek is, in our perspective, trying to do is mostly limit -- overly

narrow or overly limit the claims and in ways that, quite frankly, don't seem particularly helpful to a jury in how to figure out how to parse out infringement or non-infringement, or the invalidity issues.

THE COURT: Okay.

MR. KHAN: So if I could just start in to --

THE COURT: Well, you're going to go to the claims right now?

MR. KHAN: Yes.

THE COURT: All right. So what I would think, why don't we do this, and maybe...

Do you have a similar kind of overview?

MR. CHEN: I do, Your Honor.

THE COURT: So why don't you do your overview, and they can figure out if they can get their computer working or what the issue is, and maybe were going to find out it's both computers, so meaning the court is the problem.

MR. CHEN: Thank you, Your Honor.

Good afternoon, Reuben Chen for Cytek Biosciences.

I'll go ahead and begin with a brief background that will help inform the proposed constructions today.

THE COURT: Right. And do you have... it

looks like you might have slides too?

MR. CHEN: I do.

THE COURT: Great, thank you.

MS. FLANIGAN: May I approach, Your Honor?

THE COURT: Yeah, please.

MR. CHEN: Thank you.

THE COURT: Thank you.

MR. CHEN: As you heard counsel say, these patents are directed to flow cytometers, and flow cytometers are used to analyze cells or particles that flow through a flow channel.

And how this basically works is there's a light source that is shined onto the cells or particles, then the light will actually both scatter, as well as fluoresce. The scattered light will be detected by what are called forward and side scatter detectors.

And importantly, the separate fluorescent light will be sent to what are called wavelength division multiplexers. Or more accurately, they're actually demultiplexers because what they do, Your Honor, is they separate wavelengths of light.

And so you see in the upper right-hand corner there that there are these detectors, there are these filters that separate the wavelengths of light, and then separate detectors that detect the different color

bands, and then that's used by a computer with algorithms to analyze the fluorescent light, as well as the scattered light.

Now, flow cytometers are not new. The first flow cytometer was developed in 1965, Your Honor. The use of WDMs in flow cytometers is also not new. That was introduced in the 1990s and early 2000s.

Our client, Cytek, actually had some early flow cytometers that used WDMs.

What BEC's asserted patents are directed to is a specific configuration of flow cytometers that have particular WDM components that are borrowed from the optical communications industry and then put into a flow cytometer.

And we see that from its own patents which state: "WDM techniques well-established in the optical communication industry can be readily adapted for fluorescent light detection."

And let me just explain, because the optical path of the light here is key to these inventions. It's key to the -- these inventions, the optical path of the light.

So BEC's patents describe that there's a laser, 501, that shines laser light, which is then relayed off of this component 503, and then it travels

through the flow cell, which is in 60 there. The tube there is the flow cell within 60, which is an objective.

And what happens when the light hits that flow cell is that it both scatters and it fluoresces. The scatter light, as it goes through this flow cell, 409, in this particular Figure 38, both is forward scattered and side scattered.

The forward scattered light is relayed off of this 406 mirror and then detected by a detector, 408. That's a forward-scatter detector, 408. The specification makes that very clear.

The side scattered light goes directly sideways, so there's no need for a optical relay -- a separate optical relay element there. And it's detected by the side-scatter detector 413.

What happens to the fluorescent light? Well, the fluorescent light --

THE COURT: By the way, just a simple thing, if you stick on this figure.

MR. CHEN: Yes.

THE COURT: So the reason why it goes sideways is because there's holes?

MR. CHEN: The reason it goes sideways is because it -- when it hits the particles, it splits. It goes into all directions, forward direction, side

directions.

THE COURT: When it hits 409, it goes in all these directions?

MR. CHEN: That's right. It goes in all directions. That's correct.

THE COURT: But then the reason why it goes 90 degree...

And by side, you mean, like, 90 degrees, right?

MR. CHEN: 90 degrees and sometimes a little bit off of 90 degrees, Your Honor.

THE COURT: Okay. But it's doing that...

Like is it going up?

MR. CHEN: It's going, yes, up in that direction.

THE COURT: Going down?

MR. CHEN: It's also -- it's also going down as well. And in the back there, there's a --

THE COURT: Does it emanate out of the optimizer? In other words, is it because I'm seeing a see-through box, but, in reality, it would only have holes on the side and in the front?

MR. CHEN: Oh, it is -- it is either glass or plastic, Your Honor, so --

THE COURT: So the entire thing is

see-through?

MR. CHEN: That's correct, Your Honor.

THE COURT: So what about the stuff that's going up and down? It's just not measured?

MR. CHEN: Up and down, that's correct, Your Honor.

THE COURT: Okay.

MR. CHEN: That's correct.

THE COURT: I see. But you could measure it. You just don't need to.

MR. CHEN: You could have a design that measures it. That's correct, Your Honor.

THE COURT: Why do you do the side and forward only? Do you only do one side, by the way or do you do --

MR. CHEN: No. This particular embodiment, you're doing both. You're doing both.

THE COURT: Okay.

MR. CHEN: Yes. You're doing -- the forward scatter is 408 because it's forward scattering, but then it's being reflected off 406, being detected by 408. So the patent describes 408 as the forward scatter detector.

THE COURT: Right.

MR. CHEN: 413 is the side scatter detector because that's --

THE COURT: There's only one of them, right?

MR. CHEN: There's only one of them.

THE COURT: I'm just curious. Sometimes I get curious. Why does it only go up one side? Why doesn't it go up the side?

MR. CHEN: Well, it does go off the other side.

THE COURT: There's only one 413. Right? There's not multiple 413s.

MR. CHEN: That's correct, Your Honor. Yeah.

So what happens when the light goes off the other side is there's a concave mirror 415 that will then gather that light and then actually direct it back out into that upwards direction. That's the --

THE COURT: So the entire wall of 415 is a mirror?

MR. CHEN: That's correct.

THE COURT: So it is, it's diverting anything coming out. Anything going in --

MR. CHEN: Yeah.

THE COURT: -- getting bounced right, gets bounced back left by the mirror?

MR. CHEN: That's correct.

THE COURT: Okay.

MR. CHEN: It's a concave mirror 415 that is

bouncing light upwards through -- there's an aberration corrector plate which we'll talk about later. That's 414 in this figure, and then it hits the side scatter detecter 413, Your Honor.

THE COURT: So it's funneling everything to that one side.

MR. CHEN: That is correct, yes. That's side scattered light. And then there's also fluoresced light. And that fluoresced light will be gathered, like I said, by the concave mirror and aberration corrector plate, which are now 601 and 602 in this Figure 31.

And then that will be output to an optical fiber 852, which then travels to the wavelength division multiplexer, which you see in the upper right-hand corner there. And Figure 25 is BEC's annotations of the WDM.

And we don't agree with all their annotations here, but it is helpful to walk through their annotations, which shows the -- how the optical path of light is manipulated by various WDM components.

It's actually very important that this is a specific configuration that in informs the claim construction here.

So 901 is where the optic fiber is, and the light is coming out of the optical fiber. And the

component 902 collimates that light and collimation runs through the entire WDM, that collimated beam runs through the entire WDM.

What happens next, after the light is collimated from 902, it's received by dichroic filter 903. What a dichroic filter does, it allows certain range of wavelengths to travel through it and reflects the other wavelengths of light.

So here, the red-colored band is allowed to pass through the dichroic filter. The component 904, which isn't particularly relevant for purposes of claim construction, further filters -- it's called a band-pass filter, and it further filters the red light. Basically further narrows the range of red light, sharpens the light.

And then the light, then, is received by 905, which is a focusing lens, which focuses the light. And this is where we have some disagreement with the way that counsel has drawn the light, but there's a focusing of the light onto the semiconductor or detector -- not necessarily a semiconductor detector, but a detector, and they give the example of the detector being a semiconductor detector there.

And then the reflected light, which has the other color bands, will travel to a relay element 907,

which could be a mirror, and that mirror will then send the other color bands all the way down to the second dichroic filter, which will pass another range of light through the focusing lens to a second semiconductor detector and, you know, so on throughout the system, Your Honor.

Now, one thing I want to point out -- and this is BEC's patent family. It's actually not the complete patent family because there are additional continuations that have since issued -- is that the earliest U.S. patent is the '412 patent. It issued on August 29, 2017.

Cytek's first accused product -- not its first product, but it's first accused product -- was released in June of 2017, mid 2017. Notably, the -- and it received its own patents. It has its revolutionary technology, not relevant for purposes of today, but you'll learn more about that as the case continues.

Notably, the '412 patent is not asserted in this case. And what we see is that in subsequent patents, what Beckman Coulter has done is to expand the scope of the claims in a way that's not supported by the specification. You'll hear more about that today, Your Honor. Thank you.

THE COURT: All right. Thank you.

Want to start with the first term.

Looks like their computer worked. Lot of pressure on you guys.

MR. KHAN: Pressure is on.

THE COURT: Might be up here.

All right. We will have to do it the old-fashioned way.

MR. KHAN: All right. Your Honor, the first set of terms is "first" and "second." At Slide 17, we have -- at Slide 17, we've set out the parties' competing constructions in the case.

If the -- Slide 18 lays out what we think is of -- is the dispute here. So the question is whether "first" and "second" identify different elements in a set or whether they instead require sequencing or ordering.

And if we start with just the basic proposition from the Federal Circuit, Your Honor, at Slide 19, this is a *3M* case. It is very common patent law convention to just use "first" and "second" to refer to various elements in the claims. That's the starting presumption that we're looking at.

If we go to the claims at Slide 20. The claims repeatedly and throughout use other language, not "first" and "second," to refer, essentially, to whether

or not there's a sequencing order in connection with the claim limitation.

THE COURT: All right. I'm good with the claims. There are other claims that clearly distinguish sequentially or temporally "first" and "second." I'm okay with that. I'm not that persuaded by it.

So what I want you to do is I want you to focus on the written description and tell me where in the written description would it be clear to me that "first" and "second" are not limited or don't have a temporal or sequential limitation, essentially. All right?

MR. KHAN: Right. I think the crux of their argument, Your Honor, essentially --

THE COURT: Don't worry about their argument. You just show me in the written description.

MR. KHAN: Sure. In the written description, Your Honor, Slide 24.

THE COURT: Okay.

MR. KHAN: So here's use of "first" and "second," essentially to refer to -- there's a T-junction that's created, T coupling 703, and "first" and "second" is used not to refer to any sequence, but just first fraction received by the first outlet and the second fraction received by the second outlet. No ordering, no

sequence.

If we go to Slide --

THE COURT: Hold up.

MR. KHAN: Yeah.

Go to Slide 25, Your Honor, now we're into the optical components. So there's a description of the composite microscope objective, which we're going to hear more about later this afternoon.

And it describes that the aspheric lens has a first zone with negative optical power and a second zone with positive optical power, radially inside the first zone. The second zone inside the first zone. So that's not sequence or order.

At the bottom of Slide 25, there's a description of how the dichroic filter arrangement separates the beam of light into a first branch and a second branch. Those are, again, not sequence, not order.

And then this may have been, Your Honor, on Slide 26 what Your Honor was getting at -- Judge, you were getting at, with the notion of whether there's a preferred embodiment or whether that matters or not.

We're just -- the only reason to point out and use Figure 25 in this context is that at least in Figure 25, the use of the word "first" is not actually

the first of the focusing optical elements. The use of the word "first," if you did it in sequence or order, it's the second.

The written description refers to the sequentially or ordered first focusing element as the initial. So, again, in sequence or order, "first" is being used to refer to the second in the sequence.

Claim -- Slide 27, Your Honor, we're just illustrating what, essentially, Cytek is trying to do by striking the words from the claims and substituting words such as "initial" and "second sequential," where -- to the extent that there's a relational requirement between the various limitations that should be set out in the other limitations of the claims, which use words like "additional" or "following" or other words like that. There is case law --

THE COURT: I don't need case law. Let's hear from them. All right?

MR. KHAN: Okay. Thank you.

THE COURT: Thank you.

By the way, I'm cutting you short because we've got a lot to do.

MR. KHAN: Yes, Your Honor. Understood.

THE COURT: I only need to hear what I need to hear.

So where I want you to start is, won't you concede if I limited my focus to just the claims, they should win? I mean, the claims --

MR. CHEN: I do not because all the claims that they point to, Your Honor, are readily distinguishable and actually do not support their position. I'm happy to walk through those. There's, like, three claims that they point to, and I can address those really quickly. And then I can also address the specification. I can start with the specification, actually.

THE COURT: Well, do the claims. I'll let you start with the claims and just show me. Because I think their arguments are pretty compelling about at least some of the claims.

MR. CHEN: Understood, Your Honor.

THE COURT: Mind you, I mean, it seems to me I ought to put less weight on the claims anyway because, you know, that's where the attorney manipulation comes in and, you know, it just really bothers me to say, well, I'm going to the fact that one claim is sequential and another is not is really probative, you know, because some lawyer came up with that. I really need to turn to the written description to find out what the invention is talking about, it seems to me.

MR. CHEN: I completely agree with you, especially since these are subsequent claims that came after the original application, Your Honor. That's correct.

THE COURT: All right. You think you can distinguish them anyway, so go ahead.

MR. CHEN: I believe I can, Your Honor.

THE COURT: All right.

MR. CHEN: Let's start with '582 patent, dependent Claim 6, which I don't have the language on here.

THE COURT: Hold up. I've got it.

MR. CHEN: This is their argument where there is a first and second branch.

THE COURT: Hold on. You want to go to...

Hold on. We go to the '582.

MR. CHEN: '582 patent, dependent Claim 6. This is one of the claims that they point --

THE COURT: I'm there.

MR. CHEN: Okay. Thank you, Your Honor.

And so they talk about a first branch and a second branch.

And may I actually approach the screen, Your Honor? I think it might be a little easier.

THE COURT: Yes.

MR. CHEN: Okay. So what they are referring to here is that there is a first branch and a second branch of light after the light reaches the dichroic filter.

And my point is that it's irrelevant which one you're going to call the first --

THE COURT: Hold up. Sorry. So I just want to get my bearings here on the diagram.

So would you point to the first optical filter in this Figure 25. What's that?

MR. CHEN: Absolutely. So the first optical filter, which is supported by the specification, is this first dichroic filter, 903 --

THE COURT: Okay. But I think he...

You don't think that, right? Or do you? Do you agree with that?

MR. KHAN: I believe that that specification, that's the first filter. I was --

THE COURT: Okay. All right. So you agree with it.

Go ahead.

MR. CHEN: And this is the second dichroic filter. And so --

THE COURT: Wait. The second is which one?

MR. CHEN: Is the blue one.

THE COURT: You agree with that, Mr. Khan?

MR. KHAN: Yes, Your Honor.

THE COURT: Okay.

MR. KHAN: The specification described --

THE COURT: Thank you. Go ahead.

MR. CHEN: Okay. And what Beckman Coulter has pointed to is that there is a first branch and a second branch of light.

And what I'm saying, it's irrelevant which one you call the first branch and the second branch here, and here's the reason why.

The light is being split at the same point and the same time. That's very different when the -- when you're talking about the flow of light being received first by a first dichroic filter and a second dichroic filter.

So that's a readily distinguishable way to distinguish their '582 Claim 6 argument.

THE COURT: Okay. Hold up. Give me a second.

Okay. So, in other words, in Joe six-pack terms, Claim 6 doesn't have to be read that the first and second filters are sequential because you can read it consistent with Figure 25 to say that the first and second rays -- or what do they call it -- first and second branches are actually sequentially simultaneous?

MR. CHEN: That's correct, Your Honor.

THE COURT: Or not sequential, actually. They occur at the same time.

MR. CHEN: Oh, that -- that's correct.

THE COURT: Do you dispute that, Mr. Khan?

MR. KHAN: No, Your Honor, but --

THE COURT: Okay. Thank you.

MR. CHEN: Thank you, Your Honor.

THE COURT: I will give you your chance. You get to come back. Don't worry.

All right. So, yeah, okay, so Claim 6, not that good.

MR. CHEN: Okay.

THE COURT: I was thinking of another claim that was more compelling but you go ahead.

What else?

MR. CHEN: '443, dependent Claim 10, they point to that.

THE COURT: Yep. Hold up.

MR. CHEN: This is our Slide 16.

THE COURT: Yep.

MR. CHEN: And I have the claim language here this time.

So they argue that based on claim differentiation, when they wrote the words "initial" --

and, again, this is in a subsequent patent, that that -- they distinguish that from "first." Not true.

When we look at their infringement contentions with regards to the claim term "initial filter," this is what they say. They say: "Any of the filters in a coarse wavelength division multiplexer is a first filter."

Any of them. Any of them in a series can be the first one, or according to them, which is actually opposite of what we heard from counsel a few minutes ago when we were talking about Figure 25 and the first dichroic filter being 903 --

THE COURT: Well, maybe that's important, but I think you're going off on, from my mind, a tangent, and yet this is a pretty compelling point.

Because when I read this, I thought this was one of their better arguments.

MR. CHEN: Right.

THE COURT: So, and what you're telling me is...

Was this in the brief that you had?

MR. CHEN: I believe we addressed this in the brief. No? Okay. Sorry, Your Honor, if we didn't, so yeah.

THE COURT: Yeah, I think I would have

remembered this.

MR. CHEN: Okay.

THE COURT: Okay.

MR. CHEN: My apologies, Your Honor.

THE COURT: Hold on a second.

I don't remember it. Okay. So it wasn't in the brief.

All right. Well, actually, so what you're saying, as I understand it here...

And what slide is this?

MR. CHEN: Slide 16, Your Honor.

THE COURT: Why don't you let Mr. Khan speak for a second, please.

MR. CHEN: Sure. Of course.

THE COURT: Thanks.

So, Mr. Khan, I told you I thought the claims kind of went in your favor, and actually I had this claim in mind.

MR. KHAN: Right.

THE COURT: But I've got to admit, reading your infringement contentions of February 14, 2025, causes me to think that maybe I gave you too much credit. So help me out.

MR. KHAN: Yes, Your Honor. So --

THE COURT: And just to be clear, why, right?

Because the reason why I thought it was a compelling argument in the briefing was because Claim 10, which depends from Claim 9, which depends from Claim 1, speaks of, in Claim 10, of a first filter that is the initial filter.

MR. KHAN: Right.

THE COURT: And since that's claimed, again putting aside the potential for attorney manipulation and whatnot, but since it's claimed, that would suggest that you can have a first filter that's not the initial filter.

MR. KHAN: Right.

THE COURT: I thought that was pretty compelling argument. But then it looks like in your infringement contentions you are saying, no, no, no, no. Any of the filters in a coarse wavelength division multiplexer is a first filter.

It's not. So can you respond to that, what's going on?

MR. KHAN: I think, Your Honor, the issue here is that these are the...

So, first of all, the infringement contentions here are incomplete. So first --

THE COURT: They're what? Sorry.

MR. KHAN: They're incomplete, right? So

first, what we're talking about here is the first filter is an initial filter of the set of filters.

THE COURT: Right.

MR. KHAN: So the dispute we're having with them is about which one would qualify as an initial filter.

And, you know, that is not a question -- that's not a dispute about which one is the first filter. The -- and so that's a different dispute from the one that's before the Court right now.

THE COURT: No, no, no. Sorry.

MR. KHAN: Yeah.

THE COURT: I think I ought to press you back on this.

MR. KHAN: Sure.

THE COURT: So the infringement contention is for Claim 10. And Claim 10 reads, in relevant part, "The first filter is an initial filter of the set of filters."

And then the contention made by your client is that any of the filters in a coarse wavelength division multiplexer is a first filter, including filters which are not immediately subsequent to the collimation lens along the optical paths.

In other words, you're not limiting it to what I would have thought was an initial filter because

you've got a different definition of initial. So, in other words...

Yeah, well, I've got to say, I don't understand it.

MR. KHAN: Yeah, let me try a different way.

First, this is referring to Claim 9. So the Claim 9 does not have the initial filter limitation, right?

So this is saying any Claim 9, when we were looking at Claim 9, any of the first filters can be a filter that's not subsequent to the collimation lens, right?

THE COURT: Yeah.

MR. KHAN: So this is not saying that -- which one is the first -- which one is the initial filter. Right?

THE COURT: Okay. So did you have...

Then maybe, because it is cut off, did you then clarify that for Claim 10.

I mean, do you have your entire contention? Can I see it?

MR. KHAN: I don't believe they're in the record, Your Honor. This is not in the record.

THE COURT: I know, but this is really important.

MR. KHAN: Yeah.

THE COURT: You know, I found pretty compelling the "initial."

MR. KHAN: Right.

THE COURT: The use of the word "initial" in Claim 10. I thought it was your most compelling argument.

MR. KHAN: Right. And what I would say, Your Honor, just to back up, is that to the extent that there's an infringement dispute over what is or is not initial filter, that's not an issue before the Court today.

The only issue before the Court is whether first and second across the claims that --

THE COURT: No. Time out. Time out.

MR. KHAN: Yeah.

THE COURT: You're right infringement's not at issue right now.

MR. KHAN: Right.

THE COURT: But what's at issue is the construction of first filter.

MR. KHAN: Right.

THE COURT: And, necessarily because of the argument you've made, the construction of initial.

MR. KHAN: Yeah.

THE COURT: So I thought initial would have meant first temporally, or first sequentially. But according to your infringement contentions of February 14, 2025, that's not the case. You're not reading initial to be first sequentially or temporally.

MR. KHAN: We are -- I don't have the rest of the contentions in front of me, Your Honor, and we can find them. But if you look at the claim, it says "initial filter of the set of filters."

THE COURT: Right.

MR. KHAN: I have no doubt that in that instance what we did was identify the first sequential filter in the set of filters.

THE COURT: Why don't you pull up the Interrogatories. Because the excerpts that are presented here would suggest the... would not suggest that at all.

MR. KHAN: Right.

THE COURT: In fact, it would suggest the opposite.

MR. KHAN: Right. But it's referenced to Claim 9 here.

But anyway, we can pull that up and take a look in the break. But the basic point is initial filter would be the initial, the first sequential in the set of filters.

THE COURT: Okay.

MR. KHAN: And we can agree with that, to the extent that the Court is concerned about that, I can agree to that today. And --

THE COURT: Well, then I'm concerned about the contention you served.

So do me a favor, we will come back to it. You pull up the contentions, and then I'll have Mr. Chen come back.

MR. KHAN: Okay.

THE COURT: All right?

MR. KHAN: Thank you.

THE COURT: Thank you.

So look, you know, until they come up with it, I can understand...

I mean, look, very good argument. It wasn't in your brief, so I've got to figure out what that means.

What else do you have as far as the claims before we get to the written description?

MR. CHEN: Absolutely, Your Honor. And I do have the rest of contentions if you want to see them.

THE COURT: Yeah, actually, but give them to them and then let's hand them up.

But you agree, what they're saying in the

contentions, and that's why you put it up there, right?

MR. CHEN: Absolutely.

THE COURT: To use my language is that in their infringement contention with respect to Claim 10, they are saying initial doesn't mean first sequentially or first temporally.

MR. CHEN: That's correct.

THE COURT: It could be anything.

MR. CHEN: That's correct, Your Honor.

THE COURT: Yeah, okay.

MR. CHEN: That is absolutely correct. And my apologies for not including it in the briefing. And we can certainly submit it as an additional exhibit after the hearing if Your Honor would like to see it.

THE COURT: Well, I opened up by saying I'm not putting a lot of stock in their claim anyway. That was the most compelling one I had.

So why don't you move to the written description.

MR. CHEN: Okay. I will, Your Honor. So moving to the written description.

As Your Honor already saw earlier, the written description supports Cytek's --

THE COURT: This Figure 25 --

MR. CHEN: Right.

THE COURT: -- basically, or it's agnostic. It would support both sides in a way, right?

MR. CHEN: It's an exemplary embodiment, but the specification actually refers to a first and second dichroic filter and labels the first dichroic filter as the initial filter 903 and a second dichroic filter as the second dichroic filter.

THE COURT: Oh, I see what you're saying. Right.

MR. CHEN: Thank you, Your Honor.

Yes. So --

THE COURT: For instance, it's agnostic, you know, as first branch, second branch, because the branches are simultaneous.

MR. CHEN: Oh, I agree, yes. Yeah. Yeah. I wanted to point out that issue with respect to the claim that they're relying on, it doesn't help them.

THE COURT: Right. But where it helps you, Figure 25, is that in terms of its discussion of the --

MR. CHEN: Correct.

THE COURT: -- first and second, the second follows sequentially from the first. It's sequentially after.

MR. CHEN: Absolutely, Your Honor.

THE COURT: Okay.

MR. CHEN: That's correct.

THE COURT: Yep.

MR. CHEN: And so BEC pointed to two passages in the specification. If I can actually go to their slides.

THE COURT: Well, do you want to point to anything else? I agree Figure 25 supports you. I totally get that.

By the way, what do you think about it, is there a preferred embodiment in this patent?

MR. CHEN: No, Your Honor. It's an exemplary embodiment, like Your Honor stated. And, actually, we do address that.

They make an argument that we are excluding the preferred embodiment. Again, it's not a preferred embodiment. That's their argument in their briefing. We are not excluding that embodiment. The earlier parent, '412 patent, has a claim that maps onto Figure 25.

So like Your Honor stated, as long as there's one independent claim that maps onto the embodiment, it's not being excluded, and it's not being excluded here, Your Honor.

THE COURT: Right. Now, the reason why you say, actually, figure...

Let me step back. You both say Figure 25 supports your respective positions. Right?

MR. CHEN: Yeah.

THE COURT: Okay. And the reason why you say Figure 25 supports your position is because of the labeling of the dichroic filter.

MR. CHEN: Dichroic filter. Also other components, Your Honor, not just the dichroic filter.

THE COURT: Yeah?

MR. CHEN: That's actually in our briefing.

THE COURT: Yep.

MR. CHEN: There's a reference to --

THE COURT: Hold up.

MR. CHEN: This is on Page 15 of the Joint...

THE COURT: Yep.

MR. CHEN: It's actually Page 14 of the Joint Claim Construction Brief.

So there's also a reference to a collimating optical element 902, which we'll get to later on, because we believe that's a means-plus-function term, but they label that as a collimating optical element and then they refer to a second optical element being 907, Your Honor.

So that's again, you have first dichroic filter, second dichroic filter. You've got one optical

element here, you have another optical element, 907. So you have first optical element, 902, and second optical element, 907, Your Honor.

THE COURT: Hold up.

Okay. So are there any other instances in the written description, besides these two, where first and second are shown to be sequential?

MR. CHEN: Not that we are relying on, Your Honor. There may be other places, but we also do point to the claim language as well, and that's cited in our briefing and one example --

THE COURT: When you say the claim language, go ahead and give me the claim language you're talking about.

MR. CHEN: As one example, Claims 1 and 5 of the '106 patent make very clear that there is a sequence to the first and second as they're used throughout this claim.

THE COURT: Right.

MR. CHEN: Happy to diagram it. But in the interest of time, I would actually like to address the two passages of the specification that they pointed to in their argument, Your Honor.

THE COURT: Yeah. Just give me one second. You can do that.

Okay. So the first one is the T at Figure 14; is that right? Right there?

MR. CHEN: Correct. Their Slide 24. They talk about a first fraction and a second fraction.

What we're talking about here is the liquid. We're not talking about a optical path. We're just talking about separating liquid into a first fraction and second fraction. Has nothing to do with the claim language here with the WDM, the wavelength division multiplexer or de-multiplexer that we're talking about here. We're not talking about the optical path. We're talking about liquid.

Their second argument is on Page 25. They talk about a first zone and second zone. I'm going to use my slides for a later term to explain what is going on here.

THE COURT: I just want to follow up, though, on the liquid, right?

MR. CHEN: Yes.

THE COURT: I'm not a science guy, but if you shove liquid down a tube, and it hits the T, it's going to go in both directions. I mean, I think it has to go in both directions, right?

MR. CHEN: That's correct.

THE COURT: Right.

If you shove light down a tube, it's just going to reflect back at you, isn't it? Or what happens? I don't know. That's what I would have thought. In other words, this is not comparable at all.

MR. CHEN: So if there's a dichroic filter, it's going to allow a color band through and it's going to reflect the other color band through.

The same argument that I made --

THE COURT: No. No. But Figure 14, 703 is what? It's a tube, right?

MR. CHEN: That's correct. It's a tube of liquid. And what happens is --

THE COURT: Like a pipe?

MR. CHEN: There is a first fraction and there's a --

THE COURT: First fraction, liquid. Okay.

MR. CHEN: First fraction and a second fraction. And it doesn't matter which one -- again, it's actually very similar to the argument about first branch, second branch. It's happening actually at the same time.

But the greater point here is this passage of the specification has nothing to do with the optical path.

THE COURT: No. No, I agree. I think you're right. But I just want to understand. You started

mentioning the dichroic filter again. You mentioned that as if it were analogous to the pipe of 703.

MR. CHEN: It's not.

THE COURT: I wouldn't have thought that. I thought the analogue to 703 with optical stuff would be a ray or something. I don't know, what's the analogue?

MR. CHEN: Yeah. Yeah. I think -- I'm not sure there's a clean analogue. I'm not sure there's a clean analogue, Your Honor. I was just saying that it does hit that T at the same time, and so you have a first branch -- you have a first fraction and a second fraction.

In that sense, it's similar to a first branch and a second branch, but I agree it's not a perfect analogy when you're talking about a dichroic filter because that has to deal with the optical path of light. Here, we're talking about a liquid, and it's not relevant to the claim language here.

THE COURT: Okay. Go ahead now. Next, they've got the zone. This is their Slide 25.

MR. CHEN: Correct, Your Honor.

THE COURT: Okay. What do you say to that?

MR. CHEN: So what they're talking about here, Your Honor, is this piece, right here, which we're going to talk about more later.

THE COURT: What slide is that?

MR. CHEN: This is Slide 101 of Cytek Bio's demonstratives.

THE COURT: Okay.

MR. CHEN: They're talking about this piece 602, which is an aberration corrector plate. And what they're talking about is that there are negative and positive zones. And you can see right here through the little cutouts, negative and positive zones, the surface. Right?

THE COURT: No. I don't know what I'm looking at. What do you mean?

MR. CHEN: Oh, sorry. So, Your Honor, do you see my laser pointer?

THE COURT: Yeah.

MR. CHEN: There's negative and positive zones here. There like is a shape -- see where the curve is?

THE COURT: Oh, yeah. I see the curve. Okay.

MR. CHEN: Yeah. So that's what that's referring to. And, again, the light is hitting those at the same time. It's -- they are different zones, sure, but it's not relevant to the claim language here. The claim language isn't claim zones, right? That's not in the claims. The claims are talking about dichroic filters, talking about semiconductor detectors, first

semiconductor detector, second semiconductor detector. It's not talking about zones.

And so my point is, similar to the first branch, second branch argument, the light is hitting this aberration corrector plate at the same time. And this first zone and second zone is just saying there are different -- there are different zones on that surface of the aberration corrector plate.

THE COURT: Okay. Now, the second example they give, the first branch and the second branch is what you pointed out, or it's not, right? Or is it? Is it the same issue that's occurred that's illustrated in Figure 25?

MR. CHEN: No, that's claim -- claim language, Your Honor. The first branch and second branch was in their claim language.

And then first fraction, second fraction was in Figure 14 that Your Honor pointed out.

THE COURT: But look at their Slide 25.

MR. CHEN: Yes, Your Honor.

THE COURT: So you just dealt with the first box, which is first zone and second zone.

MR. CHEN: Oh, oh. Yes. You are correct, Your Honor.

THE COURT: The second box, I just want you to

address, where they are referring to the separation of the beam of light into a first branch and a second branch of distinctive colors.

Is this description what you pointed out is in Figure 25 where the two branches are actually occurring simultaneously?

MR. CHEN: Correct, your Honor. My apologies for not noticing that second part on Slide 25. But, yes, that is absolutely correct.

THE COURT: Okay. All right. Anything else?

MR. CHEN: No, Your Honor. Thank you.

THE COURT: All right. Mr. Khan.

MR. KHAN: Thank you, Your Honor.

So just to level set where I think we are now, is there's an acknowledgment from Cytek that in the specification, first and second are used sequentially, albeit they have reasons why it may not be relevant. But just the words "first" and "second" are used not to denote sequence or order.

THE COURT: Wait. Wait. What?

They acknowledge that at least one of your examples, actually two. They acknowledge that two of your examples about first and second do not necessarily require sequencing.

MR. KHAN: Actually, I heard all three.

THE COURT: What's the third?

MR. KHAN: The first and second fractions with the liquid.

THE COURT: Yeah.

MR. KHAN: The first and second zones.

THE COURT: Yeah.

MR. KHAN: First and second branches.

THE COURT: Oh. Okay. Yes.

MR. KHAN: All three, right?

THE COURT: Yes.

MR. KHAN: So the specification uses the words first and second not to refer to a sequencing or order, but to just refer to one element of a set of elements. So I think we -- I'm going to talk about Figure 25 in a second, Your Honor.

THE COURT: Yeah, but the difference is...

Well, first of all, I think we can dispense with the zone and the liquid. They're just not relevant.

We're talking about the optical path, right?

MR. KHAN: The zone is in the optical path.

THE COURT: It might be in it, but it is...

Actually, I mean, I'm trying to figure out if there's a way to articulate it, but it seems to me very obvious that the referencing to the zone at Column 51,

Lines 45 through 50, does not help your...

I just don't see how it's relevant.

MR. KHAN: So the composite microscope objective is what is collecting the light --

THE COURT: Right.

MR. KHAN: -- from the flow cell. So it is in the optical path.

And I think Mr. Chen's diagrams actually showed the light flowing through that composite microscope objective. So it is in the optical path.

THE COURT: Is it bouncing it back, right? I mean, is it coming in and bouncing off the concave mirror or is it going through it?

MR. KHAN: The composite microscope objective is there to collect the light that's coming off the cell that's going through the flow cell. And then, as we discussed earlier, there are -- it's passed down to the fiber optic cable, and then essentially to the detectors downstream through the WDM.

But the composite microscope objective is definitely in the optical path. It is responsible for collecting light from the flow cell.

THE COURT: All right. We will come back to the objective branch or to the concave mirror and the corrector plate.

MR. KHAN: And so then I want to talk about Figure 25, Your Honor.

THE COURT: Yeah. That's the one you need to talk about, which you just said is the more exemplary embodiment in the patent.

MR. KHAN: It is discussed the most, yes.

THE COURT: Right. And it seems pretty clear it is discussing first and second sequentially.

MR. KHAN: Not quite, Your Honor.

So with respect to the filters, it may be saying that the first filter is in sequence -- is also the first in sequence.

THE COURT: Right.

MR. KHAN: With respect to the branch of the optical path, remember Mr. Chen agreed that first branch and second branch in the optical path, it splits.

THE COURT: Agree.

MR. KHAN: So it's not referring to a sequence order there.

And then if we can look at Slide 25, right, of -- sorry, Slide 26 of Beckman's presentation, the focusing lenses all the way to the right, right, the focusing lenses, there's an initial focusing element and then a first focusing element.

THE COURT: Right. And your point is that 908

is --

MR. KHAN: Exactly. That's the 906 and 908 point.

THE COURT: Right.

MR. KHAN: The 908 is referred to as the first focusing element, but the initial focusing element is 905.

THE COURT: Right.

MR. KHAN: And so in Figure 5, we've discussed today, Your Honor, three different aspects of Figure 5. I would submit two out of three of them are usage of first and second in a nonsequential way.

We've talked about the filters. Maybe the filters first and second are used in sequence. Not in the branches, not in the focusing element.

The specification is pretty clear, Your Honor, that first and second are not exclusively limited to use or usage in any aspect of the device in a sequential or ordered manner.

THE COURT: Okay. Now, hold on. The claimed language that's at issue is the first what?

MR. KHAN: It is -- they have claims that are referring to first and second branch, first and second filters, first and second -- they want first and second to be applied to all of the elements that are in --

THE COURT: Okay. Would you agree at least, though, that when it comes to filters, first and second should be sequential?

MR. KHAN: No, Your Honor.

THE COURT: Well, how can you not when the only...

Well, then, can you point to any other filter besides the two filters identified in Figure 25 where first and second are used non-sequentially?

MR. KHAN: I don't think we have that, Your Honor. But the answer to that is we don't limit to the preferred embodiment.

So the first and second throughout the specification is used in a nonsequential way. In one instance, perhaps, it's use in a sequential way.

THE COURT: Right. But you said "preferred embodiment," and you keep doing it. We don't have a preferred embodiment.

MR. KHAN: Oh, sorry. Exemplary embodiment.

THE COURT: But I think it's telling that you keep referring to it that way. It really is. And your whole brief is telling. When you keep saying it's the preferred embodiment, it's not reading it out.

And, in fact, looking at *Phillips*, I'm supposed to read the claims in light of the

specification, in light of the written description. What could be more probative than the written description?

MR. KHAN: Agree with you.

THE COURT: And the only filters that are discussed as first and second are sequential.

MR. KHAN: Right. And, but there are focusing -- so just because the words "first" and "second" in that instance are used in a sequential way, doesn't mean that the written description as a whole is intending to use "first" and "second" in a sequential way. We've got lots of instances of the written description not using the words "first" and "second" in a sequential way.

THE COURT: Okay. But I just want to sum up. Can you point to any instance in the written description where "first" and "second" are used to describe a filter and not used sequentially?

MR. KHAN: I can look into that, Your Honor. I don't think there is such an example.

THE COURT: I don't think there is either.

MR. KHAN: But, and then I wanted to come back to the claim -- the infringement contentions that --

THE COURT: Yes, you should come back to that.

MR. KHAN: So, essentially, in that instance,

Your Honor, I am willing to stipulate here that initial set -- initial filter of a set of filters is going to be the first in the sequence.

THE COURT: All right. Well, you --

MR. KHAN: So I don't think the contentions -- you know, they are irrelevant in --

THE COURT: Well, wait. Time out. Time out. Time out.

MR. KHAN: Yes.

THE COURT: Why did you take that position in your infringement contentions in February? Did you write them?

MR. KHAN: We wrote them, Your Honor.

THE COURT: Why did you write them?

MR. KHAN: The contentions are referring to -- they're saying look up to Claim 9. In Claim 9 it doesn't say initial filter.

So we're incorporating by reference the prior discussion of Claim 9, and we're saying look at Claim 9, any one of them can be the first filter, and then what follows is a discussion of the initial filter.

And I think we can show you that in a letter submission to the Court. We don't have the -- none of this was briefed, so it's sort of hard to understand what to do.

But what I'm willing to say, Your Honor, is the initial filter of a set of filters is going to be the first in the sequence.

THE COURT: Okay.

MR. KHAN: So, hopefully, that resolves the issue. To the extent that there's a problem with the infringement contentions -- I don't think there is -- that would resolve it.

THE COURT: All right.

MR. KHAN: And then, Your Honor, if I could make one more point.

THE COURT: Yeah, go ahead.

MR. KHAN: It's a real quick one.

I think, essentially, their issue is basically that they want the ordering to be done in connection with the optical path. But there's a claim that talks about that and the other claims don't talk about that.

That claim is on Slide 20. That's Claim 9 of the '443 patent that says, "Wherein an optical path of the light includes a first set of the filters followed by a first mirror."

And that claim tells you, well, I am in the optical path. I've got a first filter of the set of filters followed by a first mirror.

So in -- so where the claims are talking about the filters and mirrors being organized in relation to the optical path, that's claimed in that way. We don't -- there's no requirement that they be claimed that way in every single claim. And I think that's, basically, the point, Your Honor.

THE COURT: Okay. Can you point to any embodiment...

Actually, I've already asked that question sorry. We're good. All right.

MR. CHEN: Can I make just two quick points?

THE COURT: Yeah. But the first question I have for you is; why don't I just construe first filter, when first and second are describing filters, it has to be sequential, but when it's describing branches, it doesn't. Or zones or whatever.

Are you good with that?

MR. CHEN: Zones and branches, I'm fine with that. But with respect to the other components in the WDM, first and second also have positional significance. That's supported by --

THE COURT: So show me the written description where there's first and second is sequential other than Figure 25, where there is the dichroic filter.

MR. CHEN: Yes. So in the figure --

THE COURT: And especially given, I think a problem for you --

MR. CHEN: Uh-huh.

THE COURT: -- your biggest problem in the written description are the optical relays, the 908 and the 905, right, where the 908 is described as the first, but actually sequentially it's second?

MR. CHEN: In the -- can we pull up Figure 25. Thank you.

The specification talks about an optical component, a collimating optical component 902, and then talks about 907 as being the second optical component.

So again, there's a sequence with respect to other components in the WDM.

THE COURT: Hold up.

So 907 is a concave mirror, right?

MR. CHEN: 907 can be a concave mirror, correct, Your Honor.

THE COURT: Okay. But I'm talking about, I thought there was in the written description reference to 908 being designated as the first.

Is that an optical relay? What is it?

MR. CHEN: Oh, no. I want to address that argument, in fact, Your Honor.

THE COURT: Okay. That's what I'm saying,

that's, I think, your hardest...

That's their best argument on the written description.

MR. CHEN: They're pointing to the claim language, not written description. There's no written description support in their Slide 25. If you look at their Slide 25, what they're pointing to is Claim 1 of the '582 patent.

This is their argument that there are no claims that read onto the preferred or exemplary embodiment, an argument that we disagree with, because the '412 parent patent claims certainly map on to Figure 25.

So there's no support in the written description argument for their Slide 25. That is an incorrect labeling. There is no be initial focusing element in the specification and a first focusing element being 908.

That's from their claim language, and the claim language doesn't use the numbers 906 or 908. That's their own mapping of Claim 1 of the '582 patent to Figure 25.

So all of the written description supports our position, and so that was one point that I wanted to make, Your Honor.

The second point is, just to clarify did I go to the aberration corrector plate.

Mr. Knight, it's Slide 100.

Your Honor asked this question earlier, and what's important to point out is that this is not part of the WDM. It is part of the optical path, correct. And if we could go to Figure 31, Mr. Knight. That would be Slide 5.

Slide 5. This is the objective with the concave mirror and the aberration corrector plate. That's the WDM up to the right side, upper right side there.

And what I was stating earlier, if we can go back to Slide 100, the aberration corrector plate has that surface, and the light is going to hit that surface at the same time that has the first zone and the second zone. So it's at the same time in the optical path.

But in any event, that's before the WDM.

THE COURT: Right. But his point, I think, is because it's hitting at the same path, it doesn't have to be sequential. They're both at the same time, yet they're described as two zones.

MR. CHEN: Correct, because it's irrelevant to the optical path -- with respect to the issue of is it first or is it second, it's irrelevant whether you want

to call one a first zone or a second zone. It's not claimed. There's no first zone in the claim language.

What we're focused on is a specific configuration of the WDM in Figure 25 and how various components in the WDM manipulate light.

And that requires a specific sequencing of the components, and so that's why the patents describe a first dichroic filter, second dichroic filter, a optical element, and then a second optical element.

THE COURT: Right, but they describe a first and second branch. You are saying that's --

MR. CHEN: That's only in the claims language, Your Honor.

THE COURT: Only in the claim language.

MR. CHEN: That's in the claim language, and they -- you're right that there's that one passage in Slide 25, where they are describing the first branch and the second branch. Right?

THE COURT: Right.

MR. CHEN: Yeah, 57, 4 to 7.

THE COURT: Right.

MR. CHEN: Let me go to 57, 4 to 7. Correct.

THE COURT: So that would suggest that they don't have to be sequential.

MR. CHEN: For that particular instance,

because they're at the same time. They're not sequential. That just supports our position because the light's basically hitting that component, that dichroic filter.

Could you put up Figure 25. There we go.

Whereas light is being received first by the dichroic filter and then second by the second dichroic filter. The branching is occurring here at exactly the same time.

THE COURT: Right.

MR. CHEN: So whether you call one a first branch or a second branch, that doesn't matter because they're actually -- the light is hitting that same space and same point in time.

THE COURT: Okay. But I thought you want me to construe...

Hold on a second.

MR. CHEN: So maybe what will help is I think if we go to our proposed construction.

THE COURT: Hold up.

MR. CHEN: So in our...

THE COURT: Is a curved mirror and concave mirror the same thing?

MR. CHEN: No, they're not.

THE COURT: Is a concave mirror a curved

mirror?

MR. CHEN: A concave mirror falls under curved mirror, correct.

THE COURT: Correct. So it's a subset of it.

MR. CHEN: That's correct, Your Honor.

So --

THE COURT: Hold on a second.

MR. CHEN: Understood.

THE COURT: Okay. Go ahead.

MR. CHEN: If I may, Your Honor, our proposed construction is for the terms "curved mirror," "focusing optical element filter," "optical filter," "dichroic filter," "semiconductor detector," and "image."

There's no "branch" in there. That's not what we're asking the Court to construe.

THE COURT: What about optical relay? That would be a focusing optical element? What would that be?

MR. CHEN: That would be a -- potentially it could be the curved mirror, optical relay element, yes.

THE COURT: All right. Anything else you want to say?

MR. CHEN: No. Thank you, Your Honor.

THE COURT: Let's take a break. Give the court reporter a break. Be back in ten minutes.

(Whereupon, a recess was taken.)

THE COURT: Please be seated.

All right. So I think we need to change the term, the disputed term, and make it "disputed terms." And I'm going to construe at least one of those terms today. And then I'm going to have you break up and agree on what the other disputed terms are, and we'll submit some additional briefing.

You can address those terms. So, for instance, I don't think it's helpful to just do "first" and "second" with the litany of terms.

I do note that branch, first branch, and second branch were not asked to be construed. That's important. First zone and second zone were not asked to be construed. That's important.

The problem is, the sub-terms of the first and the sub-terms of the second that I was asked to construe, I'm not sure we've addressed the meaning of those sub-terms sufficiently so that I can offer a construction today. The one exception would be filters, for instance. All right?

Now, the Federal Circuit has frequently stated that the words of a claim are generally given their ordinary and customary meaning. And the Court has also made clear in *Phillips* and *Vitronics* that the ordinary and customary meaning of a claim term is the

meaning that that term would have to a person of ordinary skill in the art in question at the time of the invention.

Now, this inquiry into how a person of ordinary skill in the art understands the claim term provides an objective baseline from which to begin claim interpretation.

Consistent with the standard construction rule announced by the Supreme Court in *Markman*, Federal Circuit made clear in *Phillips* that, quote, "The person of ordinary skill in the art is deemed to read the claim term not only in the context of the particular claim in which the disputed term appears, but also in the context of the entire patent, including the specification." Unquote. That's at 415 F.3d Page 1313.

Now, the plaintiff pointed me to the *3M* decision, and that's at 350 F.3d, not sure what the first page is, but it's in the 1300s, 1372. And in that case, the Court held that there was nothing in the intrinsic evidence that was at issue in that case that required a limitation of sequential creation of the multiple embossed pattern.

And I agree here with the plaintiff, for instance, that the intrinsic evidence would not require, that the "first" and "second" would impose a sequence or

temporal order if it were describing branches or zones.

We've discussed already this afternoon at length the fact, and the defendant doesn't contest that there are branches that are discussed, for instance, in Figure 25, where there is no sequence, that both branches occur simultaneously.

And the zones, Figure 9A, again, the light is hitting them both at the same time. I think that's undisputed they're simultaneously.

So if I were faced with a claim language that was describing zones or branches, first and second zones or first or second branches, I would agree that read in light of the written description, there would be no limitation, sequential or temporal limitation.

The problem for the plaintiff, though, is the only disclosure of first and second filters is in Figure 25, and that's it. There's nothing else.

And what that says to me is when, therefore, I construe a first and second filter in a claim, I should read it in light of that disclosure and construe first and second filters to require that the first filter occur sequentially before or temporally before the second filter.

So I agree with the defendant's construction of first and second filters.

Now, what I'm going to do is I'm going to ask that you go back and look at the terms for which there is a first and second designation in the asserted claims and then just go through each of them.

So, for instance, the first one I recall was a curved mirror, correct? And there appears to be, in Figure 25, strong evidence that when it comes to at least one subset of a curved mirror, there ought to be a sequential or temporal limitation. But I don't know enough, and I haven't heard enough argument to be able to determine whether the temporal or sequential limitation should be required for any kind of curved mirror. I just don't know.

So what I'd like you to do is just go back and maybe meet and confer and come up with a list, the universe of those terms that you want me to construe, all right? And then just submit something, and I can construe it at a later date.

Now, what you need to do is you need to look at, in terms of just guessing what I'm going to do, you need to look at the written description. I do not find as compelling the plaintiff's reliance on the claims, which are written after the fact, which are not consistent with their discussion of first and second, if you go across patents. And I do not think are entitled

to much, if any, weight.

That will be, I guess, an appeal issue that you all can argue. But it just seems to me that I'm really, really focusing on *Phillips'* admonition that the claims are to be read in light of the written description.

All right. So that's where I am on the first term. I'm going to leave it at that and then let you all go back and submit to me further briefing, and we'll work out the other particulars. All right?

Okay. Let's go to the next term.

By the way, I am a little worried about time. Should we go to the last term? What do you all think? What's most helpful to you? What do you want to leave here, if you could only have a limited number of constructions?

MR. CHEN: I think "collimating" and "optical element" would be the next most important terms, Your Honor.

THE COURT: Okay. Mr. Khan, what do you think?

MR. KHAN: I think, Your Honor, if we could do, yeah, those two.

THE COURT: Okay.

MR. KHAN: And then "collimating optical

element," which is certainly related to the two terms.

THE COURT: Okay. Let's do it. Let's go right next to "collimating" then.

MR. DENNHARDT: Good afternoon, Judge. Jeffrey Dennhardt for Beckman Coulter. And, fortunately, it looks like we've got the technical issues resolved, so we are able to use the screen.

The next term is "collimating," "collminate," and "collimated beam."

And we put the constructions here, but maybe I think the place to start is this is a common term used in optics. This is not a term that's coined for purposes of the patents. You've seen many references describe this term. Both parties have components in their products that are identified as "collimating lenses."

So this is a well-known term that should be afforded its plain and ordinary meaning.

And the dispute, as we see on Slide 32, is whether collimation permits some convergence or divergence as we propose or, instead, requires perfect parallelization, as Cytek proposes.

And the second issue is whether the rays must originate from a point source as reflected in Cytek's construction.

THE COURT: Do you think I can resolve this without resort to extrinsic evidence?

MR. DENNHARDT: I think you can, Your Honor, and I'm happy to go -- I know you're not as interested in the claims. I'm happy to go right to the specification.

THE COURT: When you say I'm not interested in the claims, I'm very interested in the claims. Okay?

MR. DENNHARDT: Okay.

THE COURT: Nothing I have said --

MR. DENNHARDT: I didn't mean to overstate.

THE COURT: You would be mischaracterizing what I said if you were to say, for instance, to the Federal Circuit that, "Oh, he ignored the claims."

That's not true. I'm starting with the claims. What I am saying is claim differentiations, I don't find to be a very compelling argument because of the ability of attorneys, as opposed to scientists and inventors, to manipulate claims, to add claims subsequent to the invention, years after, and then to come to a court and ask me to interpret the scope of the invention and the meaning of claims based on those additional claims that were really, as I say, drafted by lawyers.

So just refer back to that if it comes up in the Third Circuit, or the Federal Circuit.

Thank you. Go ahead.

MR. DENNHARDT: Understood, Judge. And, I'm sorry. I was just trying to go right to the written description here, because I think this can help resolve the dispute.

I do have a claim on here, but it's consistent with the written description that we see. And when the patents describe "collimation," they indicate that the collimated beam has substantially the same diameter. We see that both in the '582 patent, Claim 16, and in the specification at Column 45.

Column 45, again, just to indicate what we're looking at or what we're talking about, if we look at Figure 25 on the right, the two portions that it's discussing that have substantially the same diameter, the two collimated beams are the two that we've highlighted in yellow there.

And why does this resolve the dispute? Well, if perfect parallelization was required as Cytek proposes, it wouldn't say the word "substantially," it would say "it has the same diameter."

"Substantially" is intended to acknowledge that in the real world, in the way light actually behaves, there can be some convergence and divergence. Their expert agrees with that. He talks about the fact

that light scatters and there are aberrations. And we have this in the slides as well.

But the way that light actually behaves does not require perfect parallelization. And there are numerous references that say that, both intrinsic to the patent and extrinsic. And I'm happy to go through a few of those.

So starting with the intrinsic evidence. This is from the file history. And Cytek puts a lot of weight on the fact that the file history distinguishes between collimation and focusing.

We don't disagree with that. Collimation, for example, in the context of a collimating optical element and focusing optical element, those are two different things. And we seek to construe them differently. But we acknowledge that as a practical matter and in the real word, as it says here, "Collimation means generally maintaining the width of a beam."

It doesn't say it perfectly maintains the width of a beam. It says that it limits its convergence or divergence. We see the same in the second excerpt there.

That's consistent with the extrinsic evidence. Again, it talks about having nearly parallel

rays. It talks about having minimum ray divergence or convergence. And, again, on the bottom, we see nearly parallel rays.

Their own expert talks about the fact that collimation can include some convergence. So here's a patent for which their expert, Dr. Ilkov, who is one of the named inventors, and it says, "The collimating optical element focuses."

So their own expert agrees that there can be some convergence in a collimating optical element or in a collimating beam.

That's in the case law as well. In talking about the term "collimator," it says that it bends the incoming light rays towards the parallel. It doesn't say that it makes them perfectly parallel because, again, perfect parallelization doesn't exist in the real world. It's a physical impossibility.

And --

THE COURT: By the way, does the patent say that?

MR. DENNHARDT: Does the patent say...

THE COURT: That it's a physical impossibility.

MR. DENNHARDT: No. Well, because it doesn't need to.

THE COURT: All right. So then you are relying on extrinsic evidence.

MR. DENNHARDT: No, Your Honor. The file history is intrinsic evidence under the Federal Circuit case law.

THE COURT: Does the --

MR. DENNHARDT: So I will go back to that.

THE COURT: Sure. Does the file history say it's impossible?

MR. DENNHARDT: If you look -- here, let me go to it. I was actually just on that slide.

THE COURT: It's all right.

MR. DENNHARDT: Here's -- this is from the file history. This is Exhibit 6. It says, "Collimation, while not necessarily maintaining parallelism, given that achieving perfectly parallel rays is not realizable in practice."

So, yes, it expressly said --

THE COURT: Well, in practice. Okay.

MR. DENNHARDT: Yes. So in the real world, right, when you actually have a product like we're talking about here, collimation is referring to limiting the convergence or divergence, not eliminating it entirely.

THE COURT: Okay.

MR. DENNHARDT: This is from our expert, that perfect collimation does not exist in the real world. It's from other references that Edmond Optics talks about the fact --

THE COURT: So that's what I meant. In the real world, it's not possible, then you are relying on intrinsic evidence as opposed to it's not practicable or it's not done in practice, which is the file history.

MR. DENNHARDT: Your Honor, I think that the patent discussing the fact that it's a beam of substantially the same diameter is an acknowledgment of that real world reality, right?

If perfect parallelization was possible and could be achieved, there would be no need to include the word "substantially."

THE COURT: How about the reference in the patent to "nearly collimated."

MR. DENNHARDT: Yes, Your Honor.

THE COURT: How about that? That would suggest, I mean, if collimated can never be achieved, why do you have to have "nearly collimated" as a term?

MR. DENNHARDT: Yes. Judge, I think on that -- first of all, "nearly collimated" isn't a claim term. Right? So it's not one of the terms that we need to construe, but it's a further acknowledgment that there

can be some flexibility in that.

And let me give you an analogy. If you think about a water bottle, right? The water bottle is full. Right? Your water bottle is next to you. When they come out, before you open them, it's full. But there's still some space in the top, right? It's not -- the volume is not 100 percent full.

Then you take a sip of the water bottle. The water bottle is not nearly full, right? So it's acknowledging that there is -- full, in and of itself has some variance, right? Nearly full means a little bit less than the variance that's permitted for full.

It's the same thing here, right? Collimation means substantially the same diameter. Nearly collimated provides a little bit more flexibility.

But, again, it's not a claim term, so I don't think that's really necessary for Your Honor to construe in this case.

THE COURT: Last question. How is this going to play out in the case? If I agree with you, their expert's going to say what, it's not collimated? Your expert is going to say it is. They are going to, basically, dispute, what, how parallel the lines are?

MR. DENNHARDT: I think that's right -- Your Honor, it's not totally clear to me. You know, I guess

what it seems to me to be happening is because their construction requires perfect collimation, it seems to me that they might then try and turn around and argue, well, of course we don't do that because you can't achieve that in the real world.

And so if that's the case, well, then they've precluded any product from ever doing that, right? Because it doesn't exist. You can't -- you can't achieve it.

Would you be okay with saying it's got to be construed at substantially collimated?

MR. DENNHARDT: Your Honor, I think if you were looking to resolve this dispute using exclusively the intrinsic evidence, I think we would be okay with saying that "collimation" means "substantially the same diameter."

THE COURT: All right. Do you think the bottle is nearly full now or not?

MR. DENNHARDT: Sure. I think that's nearly full.

THE COURT: Okay. All right. Thank you.

MR. DENNHARDT: Thank you, Your Honor.

THE COURT: Before you start, I know you've got a nice chart there, can you live with "substantially collimated"?

MR. PIVOVAR: I don't think so, Your Honor.

THE COURT: No? Okay.

MR. PIVOVAR: I can explain why.

First of all, it's indefinite, variability. We're going to have experts, one saying it is and it's going to be a fight over that. So it is really something that has to be resolved. And what we think is that -- I hope that this is large enough.

THE COURT: It's not.

MR. PIVOVAR: Okay. May I move it closer?

THE COURT: Yeah, but I've got news for you, you're probably going to have to hand it up to me to see it.

MR. PIVOVAR: Well, I have slides as well.

THE COURT: Probably be good.

MR. PIVOVAR: So as long as it's not blocking the slides, that's fine. I just want to put this up here.

Just for the record, the board here is an excerpt of the file history at Exhibit 7, Pages 9 through 10, and is a portion of the file history that we pointed out in our briefing that was completely ignored by plaintiff in their argument today, which I will be referring to. I just wanted to get that up there for the benefit of this.

THE COURT: Okay.

MR. PIVOVAR: I really did, Your Honor, want to come back to exactly what you pointed out as well, and that is --

Can I go to the document viewer?

-- is that if you look at the '582 patent in Column 28, around Line 29, it refers to, you know, "A nearly collimated circular Gaussian beam."

Right? Nearly collimated. That's a -- that's different than what the claim language is that we're dealing with, which is collimated, collimating. It doesn't say "nearly collimated" in the claims.

And then if we look at -- it's a term of degree, really. What they're trying to do is inject a term of degree that's ambiguous and subjective into their construction for this term, which will be well understood, which I will get to.

But I also did want to point out to Your Honor that Column 44, down near the bottom, at Line 65 through 67, they refer to "effectively collimated."

Right? So there's a category here that we have that is collimated beam. Then somewhere past that you have something that's nearly collimated.

The claim language here says "collimating," "collimated beam." That's what we're focused on.

I do want to address, just briefly, briefly, some of the arguments that were being made by plaintiff because they're not consistent with our construction.

Okay? When they say "perfect parallelization is not possible," they never explain to you what that means. What they're saying there is that if I have a beam of light, I cannot make every single ray within that beam parallel. It's practically impossible to do that. And we agree. And our construction does not require that. And I can explain this in a second.

But just so we're clear on that, that in their briefing they try to make a big deal about that. We're not trying to construe this to a physical impossibility. Our construction is true to what collimating means. It requires parallel rays.

I will explain briefly, if I can, because we'll get a look at optics and other things, why our construction doesn't require that. And our construction is true to what we have.

The other thing is you mentioned -- and this kind of came up in their briefing a little bit -- but in optics, going back to Newton, actually, who was the first one who came up with optics, there's a construct, this idea of, like, well, let's start with a point source of light, like a very small source of light.

And I think this kind of bears a little bit on what you asked Mr. Chen about with respect to the collecting optical element, what happens.

So when the laser beam hits a cell or a particle, the light goes everywhere, just like our sun emits light in all directions, right? So when you do that, what you want to look at when you think about a point source, is that, okay, the source is very small. So when I see the light coming out of it, all we do is kind of projecting, kind of as a nice kind of cone shape.

And that only happens if the point source is very small. And it gets a little complicated. But if you look at the sun, right, the sun is not a small point. There are -- you can see it as a big spot. The rays that are coming to you from one side of the sun versus the ones on the other side are not going to be part of this perfect kind of cone.

So because -- but if you look at a star in the night sky and it's very, very far away, it does look just like a point, right?

And one of the ways that you can actually get collimated light that's used in this is you look at star light, and they actually use star light with lenses because the beam is collimated because it's coming from

so far away. There's no divergence, you know, it's a very small point, to actually measure what the focal length is of lenses doing that.

So the point is, this idea that in their briefing they are like, oh, point source doesn't exist. You can't rely on it to interpret anything here, I did want to bring you to this --

Can we go to the document viewer?

Mr. Chen mentioned the '412 patent that they have that's not asserted here. So if we look at the file history -- and this is plaintiff's statement. You can see here -- zoom in a little bit, Your Honor -- they're describing the prior art, and they say, "The detecter from the prior art is used to detect light emitted from a point light source such as a single mode optical fiber in a WDM to be used with a communication system."

Then they say, "The size of an object of such point light source is usually measured in micrometers."

Then they explain, "As such, such point light source has much less etendue than a bigger light source."

So this is plaintiff going to the Patent Office and saying, "I can understand this prior art reference. It uses a single-mode optical fiber. The

size of that is measured in micrometers. And I'm going to refer to that as a point light source."

Right? So all of the things that they say in their briefing of point light sources don't exist and you can't use that as construct, is belied by their own use of the term here.

Right? So what we mean by, in our construction, points on a source, first of all, is different than a point light source. It's, we're looking at points that collectively make up a light source. So a little bit different there.

But, also, as used in the context of this technology, what you have are sizes of light sources that are on the order of micrometers by plaintiff's own admission, are considered point light sources.

This last statement here says, "This point light source has much less etendue than a bigger light source."

Okay? And what that means is if I have a very small light source, like a point light source here, it is very easy to collimate that beam. That's what the patent says. You can do that.

As the light source gets bigger and bigger and bigger, on the order of milliliters, not microns, it becomes more difficult. It becomes more difficult.

But I just want to point out, if you were in any way persuaded by their arguments in their brief that a point light source doesn't exist, they are using it in their own -- in their own file history here, Your Honor.

Can we go to the slides.

THE COURT: This is the file history for what?

MR. PIVOVAR: This is the file history for the '412 patent. And, Your Honor, this was not, admittedly, submitted as an exhibit as part of all of the exhibits that we have.

I just wanted to explain to you there are constructs that we have here that are, you know, based on theory. And then we apply them, which is totally fine. Just to get into why our construction actually works and our construction has to do -- you have to understand, like ray tracing, all this stuff, not really easy from the briefing. But I did want to start with those overall points.

So when you look at the parties' proposed constructions here, I think there's -- you know, there's a difference, but there's also some similarities.

So we both agree that you have to look at the rays of light in the beam. And then we both agree that it has something to do with those rays of light being parallel. Right?

And then the dispute we have is we have a different way of how you can analyze what a collimated beam is, which is consistent with even the exhibits they've submitted. And what they're saying is, "Render rays of light more nearly parallel."

Now, for collimating as a verb, so it says in their proposed construction, Your Honor, this is why I think it's highly problematic is that it says, "More nearly parallel."

So, one, it has the ambiguity of what it means to be nearly parallel. And it's just saying more. "More" relative to what? Right? I can have a beam that's very, very divergent, like this, and if I -- if I make it a little less divergent, it's still a divergent beam, but I have made it more nearly parallel because I've reduced the divergence.

That's not a collimated beam. That's not collimating. That's not what's meant in the art.

So that is just something I want to point out, with that kind of injection of term of degree, ambiguity, and something that really isn't supported by any of the intrinsic record here.

And then when it comes to "collimated beam," they say it's a beam with nearly parallel rays. I'm going to explain to you how they've read that to read on

to beams that are focusing and diverging in ways that are much more broader than what I think plaintiff has indicated how they're going to read it in their briefing or how they've kind of represented it here today.

What we have is a more specific, from dictionary definitions, consistent with the file history as to what a collimated beam actually is. So I will get into why that is, but our construction is "a beam wherein all rays of light originating from a point on the source."

Right? So I can think about a light source as a collection of points of light, and all of those need to be projected parallel with each other. And those rays within the beam are neither converging or diverging.

THE COURT: My problem, though, is where is all this in the patent? I didn't come away from reading the brief, your briefing, thinking, oh, it's all there in the patent.

MR. PIVOVAR: Yeah. There's no definitional statement, right? And I think this is in some ways why we are arguing that the term "collimating," "collimated," and "collimated beam" is indefinite.

THE COURT: I know you are, but why didn't you just put up there, I mean, it sounds like there's no

dispute that...

What's the POSA? What would I call a POSA in this case?

MR. PIVOVAR: We have some of that. But --

THE COURT: Something short, like give me, like, a three --

MR. PIVOVAR: Yeah. I --

THE COURT: If I were going to a university, what department?

MR. PIVOVAR: Exactly. Like a bachelor's degree, a few years of experience in optics and optical systems, that kind of stuff.

THE COURT: So an optician? Some sort of optics guy? What do I call him?

MR. PIVOVAR: Yeah, not -- well, you -- somebody who's trained in optical systems is part of it. Is part of it, yeah.

THE COURT: Okay. And optical systems person. Okay.

So if I've got to two optical system persons, they run into each other at a coffee shop, do you think that they would be able to have a discussion and refer to collimating, and they'd each know what the other is talking about?

MR. PIVOVAR: No.

THE COURT: Really?

MR. PIVOVAR: No. And here's why. The term is used in all different ways. You can look at their dictionary definitions. It's used differently --

THE COURT: The fact that it's in a dictionary, doesn't that tell you they could have a discussion?

MR. PIVOVAR: Well, let -- can I just, like, address that in a slightly different way?

So let me -- if we can go to the document viewer, please.

THE COURT: Let me ask you this: Do you think they could have a discussion what the meaning of optics is?

MR. PIVOVAR: No, they could. And they could get to a common understanding. But they couldn't just be, like, hey, my beam is collimated. Like, they would have a general understanding of what that means.

The issue is this: Every instrument or system requires a certain amount of collimation or a certain amount of precision with it in a certain amount of things.

THE COURT: Right. You're saying it's degrees.

MR. PIVOVAR: It's degrees, exactly, right.

THE COURT: Right, but then the fact that you said, you started with collimation tells me they could have a discussion. Now, they may debate what degree of collimation is required to meet a claim in the patent.

Isn't that really what POSA --

MR. PIVOVAR: That's -- that's right.

THE COURT: So then, why don't I just not construe this term and let your experts go to town, and you can, your expert could say, well, look, I've got to tell you, I don't know what the degree of collimation is that's required here. If I had to guess, if you forced me, maybe I'd say this, but in my mind, it's indefinite.

MR. PIVOVAR: Your Honor, I would say that it is necessary for you to review the intrinsic record and give some guideposts to the jury on this or else you are just going to have battling experts.

THE COURT: Okay. So if you want me, then...

I'll tell you what. If you want to construe it based on the intrinsic evidence, then why don't you, going forward, only refer to intrinsic evidence.

MR. PIVOVAR: Okay. Go back to the slides.

And so some of this, I don't want to, like, belabor this because maybe you get it, maybe you don't, but, like, you know, there are basically three different ways that lenses can interact with -- so you have a

diverging beam of light. And then it can go into some kind of, you know, lens or something like that.

It can be converging. These are looking at the rays. They would be converging. That would be a focus beam.

When you have light that's collimated, again, parallel --

THE COURT: Hold up. Hold up.

MR. PIVOVAR: I'm sorry. I just want to make sure we're all kind of calibrated around what we're doing before I jump in because I am going to get right into the intrinsic record for Your Honor.

THE COURT: Yeah, I know, but you started with extrinsic.

So just to be clear, the slide you are showing me is from a declaration, right?

MR. PIVOVAR: So the slide, if we go to this -- so the intrinsic record refers to this book *Practical Flow Cytometry*.

THE COURT: Yeah.

MR. PIVOVAR: Right? So it's in this book. It's referring to, like, the flow cytometer. And then with this, what we have here is a description of how that book that's cited in the intrinsic -- so it's part of the intrinsic record kind of indirectly because it's cited.

And all we're doing here, Your Honor, is trying to explain, you know, what the difference is between light rays that converge, and obviously you can see that, these light rays all converge to a point. That's a focus beam.

THE COURT: Right.

MR. PIVOVAR: If they are parallel after they go through it, that's collimated.

THE COURT: Right.

MR. PIVOVAR: And then if they're still diverging after they go through it, that's a -- like the rays are diverging, that's called a defocus beam.

THE COURT: Okay. So there's three broad categories that people talk about.

MR. PIVOVAR: Exactly. And light that's collimated sits in this very specific --

THE COURT: Yep.

MR. PIVOVAR: -- parallel ray point.

So we have some other things that kind of get into this and explain what all that is, but let's go to the intrinsic record.

So in the intrinsic record, there was -- and the poster board there is Exhibit 7, but as part of that for the intrinsic record in Exhibit 7, there was a definition from an optics glossary that was submitted by

the patent owner. Right?

So this is their submission to the Patent Office saying this is how we want you to understand what collimated beam is. It says a beam in which all the rays are parallel to each other. Right?

So if you were to construe this just from the intrinsic record, you could say that. That's not their construction, that would be consistent with ours.

THE COURT: So, wait. Hold up. Let's get this straight. I thought their...

I don't really like their alternative construction. I don't like it at all nearly, you know, but in fairness to them, they're saying it doesn't have to be construed, right?

Isn't that what you're saying?

MR. DENNHARDT: Yes, Your Honor.

THE COURT: Which seems like to me the right answer here. I'm going to guess...

Well, maybe I...

MR. PIVOVAR: Your Honor, if I could.

Can you jump down to the slide. So -- hold on. Hold on.

Can I have two minutes to explain?

THE COURT: Yeah.

MR. PIVOVAR: Okay. Watch. So here's the

file history. This is on the poster board. Okay? This was in our briefing. It's there.

And what plaintiff was doing here in this context of the file history is saying, okay, I'm faced with having to differentiate what collimating means from focusing. Okay? And they are dealing with this in the context of a patent that's being asserted against their claims.

And to do that, they say -- and you can see this in the highlights on our Slide 29, right? This is just all the differentiations. "The objective lens collimates rather than focuses the light." Okay?

So there's a difference between collimating and focusing.

THE COURT: Yep.

MR. PIVOVAR: Then they say, because the lens collimates the light, a person of ordinary skill in the art would have understood that the objective lens brings all of the rays parallel to each other, albeit with some beam divergence in view of practical limitation.

So we're talking about practical limitations, right? You can't make a perfectly parallel beam. And the practical limitation here also has to do with how big is your light source, right?

If I have a small point source, it's going to

have less beam divergence. If I have a bigger light source, it's going to have more beam divergence. And that's one of the practical limitations that they're talking about here.

But then let's look at what it goes into the next sentence, which I think is the key one for you to look at. Collimating fluorescent light. This is not focusing the fluorescent light, which instead involves converging the light. Right?

So they're saying, hey, when it comes to us differentiating our understanding of these terms to the Patent Office to differentiate form the prior art, we clearly understand that collimating fluorescent light is not focusing the light because it instead involves converging the light.

So this is the intrinsic record. They understand that. So --

THE COURT: Okay. All right. So why don't we construe it that it's collimating is bringing all of the rays parallel to each other, albeit with some divergence in view of practical limitations.

Can you live with that?

MR. PIVOVAR: I think that's close, Your Honor.

THE COURT: Okay. Can you live with that?

MR. DENNHARDT: Your Honor, I think that would be picking and choosing portions of the intrinsic record.

THE COURT: Yeah, but that's not my question. My question is: Can you live with it?

MR. DENNHARDT: I don't think it would be accurate to construe the term in that, way and I'm happy to explain why.

THE COURT: Okay. All right. Have a seat.

MR. PIVOVAR: All right. So I just want to get to the point that you were making is that -- and also we're going to be having discussions about this and what it means. But just to show you how this matters.

So collimating fluorescent light is not focusing fluorescent light when they need it to be that way. And even more importantly, Your Honor, on the end of this it says light that's effectively collimated. We looked at this in the specification of the '582 patent, "By collimating, optical element 902 is not converging."

THE COURT: Right.

MR. PIVOVAR: Right? So collimating light is not focused or converging. And even effectively collimated light is not converge.

THE COURT: Okay.

MR. PIVOVAR: So Dustin, let's go to the slides that are near the end. I will -- all right.

So I'm going to put this into context for you. This was something I was going to do after the terms, but what you have here on our Slide 49 is a depiction of one of Cytek's patents. Okay? It's Figure 2A from the '076 patent. This is Exhibit 34 attached to the Joint Claim Construction Brief.

THE COURT: Time out. Time out.

MR. PIVOVAR: Yep.

THE COURT: This is what patent?

MR. PIVOVAR: If you have the joint -- we do this in the Joint Claim Construction Brief as well. But this is Exhibit 34.

THE COURT: Exhibit 34. Okay. But go back to what patent is it?

MR. PIVOVAR: So I was just going to use this because these are the images that plaintiff relies on in their infringement contentions to explain to you how they're reading their terms.

THE COURT: Okay. I don't want to hear any more about contingent claims. It's already almost 3:30. I've got to get to claim construction.

So why am I looking at -- again, I've asked you to look at the intrinsic evidence, and now you're talking about some written description from another patent.

MR. PIVOVAR: I'm not, Your Honor. So all I was doing here is -- just so you know, like, these are converging rays in yellow. In green they're diverging. There's no collimated beam here whatsoever.

THE COURT: Okay.

MR. PIVOVAR: Okay. Here is plaintiff's infringement contentions. Under their proposed construction, this converging focused beam is a collimated beam. This is exactly why you have to construe it. Right?

They're coming in and they're going to say, well, hey, if we say nearly more, we can say whatever we want. Even though the file history expressly says focused light, converging rays is not a collimated beam. They want to get away from that. Right?

And that's why, you know, the question is, when you look at this, and you can look at it again, but when you look at their briefing on this -- and we pointed this out -- they're saying, oh, this is the collimated beam that's parallel and this is the second collimated beam that's parallel.

We agree. You have to have parallel rays in the beam for it to be collimated. The question you to ask yourself, Your Honor, is, like, why didn't they identify this to you?

It's because they want you to construe it, they want you to construe it vaguely with their indefinite terms. They want to point to things and say, well, I can't be perfect. And then they want to take that and say, well, if it's not perfect, we can go back and read it onto a focused beam, which if we go back to the file history and you look at the slide -- the board right here, they expressly said it's not focusing. Collimated light doesn't focus.

So this is really why from the intrinsic record, Your Honor, you can see that their construction is wrong, and it can't be what we have. We can't be defining the patent claim terms around that.

Now, I think that, you know, the proposal that you have -- so -- is to basically say brings all the light rays parallel to each other.

THE COURT: Right. You can say it can't be convergent, it can't be focusing. And we could put that in the definition. I mean, I think that's very, very clear. And if they're playing a game, that will take it.

Now, you know, that would be one way to tackle this.

So do you have a proposal?

You know, I don't like "nearly." I mean, that strikes me as --

MR. PIVOVAR: So, Your Honor, I think you -- your proposal is only -- you're reading on what's -- we're pointing to in Exhibit 7 of the file history that says "brings all of the rays parallel to each other, albeit with some divergence in view of practical limitations," and does not include "focusing" or "converging the light" or "converging light rays" would be something that would probably be pretty acceptable to us. I want to, like, make sure that that's fine. But I think in principle, that would work.

THE COURT: Okay. Why don't you confer with your client? Is your client here?

MR. PIVOVAR: Our client is not here, actually.

THE COURT: Okay. So why don't you confer with your colleagues. And then let's hear from the plaintiff.

MR. PIVOVAR: Yeah, substantively, Your Honor, that is our construction. You get -- it's different words describing different ways, but substantively that's what it is, so that's fine.

THE COURT: Okay.

MR. PIVOVAR: And I think just, you know, if you have -- I know we're running short of time. If you have any other questions, I can explain all of the optics

and all that, but if we're looking at doing this just from the intrinsic record, it's clear from there, right? Parallel, some divergence, not converging, not focusing.

THE COURT: Okay.

Let's hear from this side.

MR. PIVOVAR: All right. Thank you, Your Honor.

THE COURT: Thank you.

All right. So how parallel do they have to be?

MR. DENNHARDT: Well, Your Honor, I think, first of all, let me start with what we have in the intrinsic record. Right?

You asked counsel: Would you be okay with saying collimating means substantially the same diameter? He said no. Right?

This comes from the specification in the claim.

THE COURT: Well, actually, so "substantially the same diameter," again, I don't find that that helpful. Substantially parallel, isn't that really what we mean?

MR. DENNHARDT: Well, it's effectively the same thing because once --

THE COURT: Okay. So then, you could live

with...

So could you live with substantially parallel?

MR. DENNHARDT: I think we could live with substantially parallel.

THE COURT: Can you live with noncovergent?

MR. DENNHARDT: I don't think we can.

THE COURT: Why not?

MR. DENNHARDT: Let me show you why. The file history -- if you remember, when we talked about when he put up his board, he said we distinguish focusing from collimating --

(Reporter clarification.)

MR. DENNHARDT: I'm so sorry.

We said from the outset that I don't disagree that focusing and collimating are two different things. Right? But he's picking and choosing certain portions of file history and ignoring other portions. Looking at --

THE COURT: You just said... hold on.

Okay. You just said, "We have said from the outset, I don't disagree that focusing and collimating are two different things."

Great. So why can't you agree as part of the construction that collimating is not focusing?

MR. DENNHARDT: Because, Your Honor, when a beam is collimated, there may be some convergence. So if you want to take this from the file history and say generally maintaining the width of the beam, including, for example, limiting its convergence or divergence, but not focusing, we would be okay with that.

But the point is --

THE COURT: Hold up. Hold up. Hold up.

MR. DENNHARDT: Yes, Your Honor.

THE COURT: See, I don't like the... I just feel like you're...

Why do you keep going back to the width of the beam as opposed to referring to parallel?

MR. DENNHARDT: That would be fine too. Generally parallelizing the beam, limiting its convergence or divergence but not focusing, that's okay.

They want to eliminate any convergence at all, right, and that's not what the file history says. It says limiting convergence or divergence.

If we wanted to add to that "but not focusing," that's okay with us. We don't disagree that collimating and focusing are different.

THE COURT: I think a compromise is reachable here if people are being reasonable.

MR. DENNHARDT: Sure.

THE COURT: Right? I think each side is trying to maintain absolute positions. You don't want to have anything...

You want to avoid precluding any convergence or any focusing.

MR. DENNHARDT: I would say any convergence. To the extent that there's limited convergence --

THE COURT: Or divergence.

MR. DENNHARDT: Limited convergence or divergence. That's right. We don't an absolute that says you can't have any convergence or divergence.

THE COURT: Right. Right. Okay. And they want some precision.

MR. DENNHARDT: I think, Your Honor --

THE COURT: And I think at the end of the day, the experts, this is boiling down to experts. I mean, the experts are going to have to come in and tell me and tell the jury what is an acceptable degree of divergence or convergence that would not render something non-collimating.

And presumably their expert would say the position your expert is taking is so extreme, it's allowing for so many convergence and divergence, that either it can't be accepted as falling within collimation or it's rendered the notion of collimation

indefinite. That's really what this boils down to.

MR. DENNHARDT: Judge, I think you're exactly right. And I think, going back to your original suggestion of not construing the term and letting it go to the experts, I think would be an acceptable solution here.

THE COURT: Well, the other alternative would be to come up with something in between what your friend said a few minutes ago was acceptable and what you're saying. And it strikes me that we ought to be able to come up with something.

So give me your best. What's your best proposal?

MR. DENNHARDT: Judge, I think if we said limiting its convergence or --

THE COURT: Hold on. And let's start with "collimating." Right? Just construe collimating.

MR. DENNHARDT: Collimating means rendering the rays substantially parallel, limiting its --

THE COURT: Hold on. "Rendering the rays substantially parallel" such that what?

MR. DENNHARDT: There's limited convergence or divergence.

THE COURT: "There is limited convergence and divergence."

MR. DENNHARDT: And if they want "but not focusing," that's okay with us.

THE COURT: How about "substantially such that any convergence and divergence is limited to the extent possible."

"Rendering the rays parallel such that there is..."

Sorry. "Rendering the rays substantially parallel such that any convergence or divergence is limited to the extent possible."

MR. DENNHARDT: Your Honor, I think generally that's in the right direction.

I think the challenge that comes to mind is how do we determine to what extent convergence or divergence is, you know, limited to the extent possible, right?

THE COURT: I know. But that's why they're saying its indefinite. I mean, frankly, what I also think we ought to do is we ought to tee up summary judgment for indefiniteness and let's do that before we go too far down the road in this case. So that's where I think we're going to end up. All right?

All right. Can you live with: "Rendering the rays substantially parallel such that the amount of convergence and divergence is limited to the extent

possible."

Can you live with that?

MR. PIVOVAR: I'm thinking about it.

THE COURT: Well, think about it, then don't talk. Just go back and talk to your partner and think about it.

MR. PIVOVAR: I'm sorry, Your Honor. It's just because if you minimize the amount of convergence or divergence that could be in a beam, you end up with our construction of a collimated beam. That's the point. So --

THE COURT: Well, then you win. If you like it, then you should say I like it.

MR. PIVOVAR: And I just want to make sure that, like, if we're going to agree to something like that, where it's minimizing -- and the question is to me, minimizing the convergence or divergence, is that a comparable?

Like if I can minimize the divergence relative to the convergence, which way do I go? There are some issues on that.

But anyhow, Your Honor, I did want to, if I could -- I know you're trying to reach an agreement here. And I just want to be clear here that having a collimated beam when it comes to light -- when it comes

to light, having convergence of a collimated beam is a physical impossibility.

And I know they're pointing to all this extrinsic evidence. There's nothing in the intrinsic record that ever says a contracting beam. They say maintaining the spots eye or the diameter of the beam and limiting or not significantly expanding the beam, because everybody understands that a collimated beam will have some divergence and no convergence. And I do want to address this --

THE COURT: We will have divergence but not convergence?

MR. PIVOVAR: Not convergence, Your Honor. And I did want to point this out because the main -- can we go to the --

THE COURT: All right. But hold on. I think I can address that. Hold on.

MR. PIVOVAR: Okay.

Can you go to the document.

THE COURT: I think I've addressed this. "Rendering the rays substantially parallel such that any convergence and any divergence are limited to the extent possible."

So it's any divergence, any convergence. So even if it is only divergence, you still get your way.

You could do it. Doesn't have to be both convergence and divergence. Can be either or both.

MR. PIVOVAR: I'm sorry that I'm pausing there. I'm thinking about the active on this. Right? What's the --

THE COURT: The what?

MR. PIVOVAR: There's like an active aspect to this, right, because it's saying -- I believe you said, like, limiting to the extent possible.

THE COURT: Limited.

MR. PIVOVAR: Limited?

It's to the extent possible, right? So...

THE COURT: I thought you wanted that.

MR. PIVOVAR: No. We do. We do. I'm just thinking about it -- I'm sorry -- in an application of let's say I have, you know, light coming into a lens and it's a focused beam. And, like, well, to the extent possible --

THE COURT: Aren't you going to still say it's still indefinite? Even with that definition, it's indefinite?

What does "to the extent possible" mean?

MR. PIVOVAR: Well, that's a good question.

THE COURT: Yeah. Well, that's what I'm wondering.

MR. PIVOVAR: But if we're saying if I'm going to -- I'm going to minimize the amount of beam divergence that a ray of light has, right, just that, that's a -- that's the definition of a collimated beam. When it comes to light, that is it. It has divergence and it's minimized.

If I have a diverging ray, it's going to be bigger, and it's not going to be minimizing the amount of divergence.

THE COURT: I thought you also want convergence?

MR. PIVOVAR: No.

THE COURT: I mean, I thought originally you did until just the last two minutes but --

MR. PIVOVAR: Right. We pointed out how in the file history here it says no convergence.

You can bring up the slide, Dustin.

And I did want to point this out. So here's how this went down from a file history standpoint. Exhibit 7 that you see on the board that we talked about before, they're first confronted with the rejection by the examiner. This is what they say, right?

A person of ordinary skill in the art would not understand that the objective lens brings all of the rays -- would understand, sorry -- parallel to each

other... some beam divergence... this is not focusing --

THE REPORTER: Can you read slower.

MR. PIVOVAR: I'm sorry.

This is not focusing... light effectively collimated...

This is on Slide 30. This is what they said.

Now, they had a parallel argument with this, but this is what they told the examiner when they were trying to do this.

Now they came back and this is the portion of file history that plaintiff's counsel is pointing to. They came back later after the examiner had already agreed for a different reason that they would be able to get their claims through and they changed. They changed what they said in some ways, and they kept what they said in other ways.

They're like collimates rather than focus. Collimation is not focusing. They're distinguishing between focusing and collimation. So they're still doing this.

If this look in this middle of this on Slide 31, our Slide 31, it says -- it changes what a POSA's understanding was from the previously what they said to what they're saying later to try and expand this out.

And I did want to point this out, Your Honor, because this -- it says see, for example, Specification 4:46 to 63. That has the indication that it's pointing to the specification, and it has support in the intrinsic record.

The file history specification --

THE COURT: I am losing you. What's the main point here?

MR. PIVOVAR: So the main point here is that he is pointing to a second part -- or counsel for plaintiff is pointing to a second part of the file history, saying you should just adopt this and let's broker a deal from this.

This is wrong. This is wrong on Slide 31.

THE COURT: Okay. So then, you just...

Are you saying you just get convergence out of it and just talk about divergence only? Is that your point?

MR. PIVOVAR: That is my point.

THE COURT: Okay. Well, then, "Rendering the rays substantially parallel such that any divergence is limited to the extent possible."

You can live with that?

MR. PIVOVAR: As long as the understanding is it doesn't involve converging beams or convergence,

that's fine.

THE COURT: But then I put convergence in I thought precisely --

MR. PIVOVAR: No, no, no, no.

THE COURT: -- because you said you are concerned about convergence too.

MR. PIVOVAR: No, no, no. I'm sorry, Your Honor. It excludes convergence.

So if you put on that phrase, "comma, excluding focused light or converging light," fine. Right?

It's the interpretation of the words, right? If you take out -- we think --

THE COURT: You want to say there can be no convergence whatsoever, but there can be divergence?

MR. PIVOVAR: Yes, Your Honor, that's right.

And I did just want to point out in this --

THE COURT: And...

MR. PIVOVAR: This is exactly what they said in their previous thing, "parallel to each other with some beam divergence."

Right? Not focusing, which involves converging light, light effectively collimated is not converging.

This is the whole point of what they're

saying here. And what they do in their follow-up, this is on Slide 30 from the file history of Exhibit 7.

But if you go to our Slide 31, which is Exhibit 6, which is the follow-up, well, they try to back off that because they know that the examiner has already done something, and they want to make it seem like this is supported by the specification.

And the point I wanted to make here, Your Honor, is there is no citation in the specification in this file history that is that. And the file history --

THE COURT: They just made it up?

MR. PIVOVAR: I have no idea where it came from.

So the file history is double-spaced. It stops at Line 30. And if you look on Page 4 of the specification, there's nothing there. Another thing, you don't have these lines on Page 4 of the specification of the file history.

THE COURT: Was this in the brief?

MR. PIVOVAR: Our expert addressed it, but this was a lot there. They pretty much -- we had to fight them a little bit about the file history.

But the point I was just trying to make here, Your Honor, is this has no support other than attorney argument. Right. Okay. We are going to say this now.

He's saying something that's different than what he said before. All we're saying is that's not right. And he's still admitting that collimation is not focusing, none of these other things. And if you look -- sorry, Your Honor. I know I'm going pretty fast.

If you look at Slide 31, then, in conjunction with all of this, what they did is they said, well, we think -- we all understand that collimated beams are not focused beams with any converging rays or anything like that.

What we're going to do though anyway is we're going to amend our claims because -- to make clear that light that's focused by collecting optical element convergences instead of being collimated. Right? Instead of being collimated. Not -- I understand that. But I'm just pointing out why the convergence, even in -- even in the portion of the specification that they're talking about -- they're distinguishing between focused light, collimated light, and light that's converging further down.

Collimates the fluorescent light, is not configured to focus the fluorescent light such that the fluorescent light leaving the objective beam converges as the claims require.

So even in this excerpt that they have where

they cite to a portion of the specification that doesn't exist, they are still admitting that collimating light doesn't read on converging or focused light.

So this is all supportive of why what you said, and you've recognized, from our perspective is the collimated beam never has focused or converging light. And --

THE COURT: The intrinsic evidence that you are quoting from right now --

MR. PIVOVAR: Uh-huh.

THE COURT: -- came after the patents were issued, right?

It's a response to the May 2, 2024, Final Office Action.

MR. PIVOVAR: This is from the file history of -- that was part of the family being prosecuted over time. That's right.

THE COURT: But it's based on the same written description. In other words, the patent that it is addressing, which is not one of the asserted patents here, but it's the same family of patents and it shares the same written description; is that the case?

MR. PIVOVAR: It shares the same written description, and I am nearly certain this is from the file history of one of the asserted patents, the '106

right? Yeah, the '106 patent. This is one of the asserted patents.

THE COURT: It is in one of the asserted patents?

MR. PIVOVAR: Yes.

THE COURT: But it's after its issuance? No? It's before?

MR. PIVOVAR: Yeah. This is part of the file history leading to --

THE COURT: Sometimes people call file history intrinsic evidence, you know, PTAB. That's what I am trying to get at.

MR. PIVOVAR: Yeah. Yeah. This was part of -- so in this case -- not to go back, originally plaintiff asserted two patents. Patents issued in December, asserted those to this case.

THE COURT: Okay.

MR. PIVOVAR: Those two -- of those two that were newly asserted, one of them is the -- it's the '106 and '107 patents that were added to this case. This is the file history from the '106 patent before it issued.

THE COURT: All right. Thank you.

MR. PIVOVAR: So this is all part of the kind of non-after disputes of the PTAB.

And the key thing is that they are

characterizing and telling the examiner what these terms mean. And all we are saying is, like, be consistent, right? Stick with what you said in the file history.

And then, if you go back to our slide -- I'll get there. It will take me a second, a little while.

It's this, Your Honor. It's this. Their allegation of infringement under this term is completely divorced from what they told the Patent Office. Even in the excerpt, like I said, of the file history that they truncated, within the broader part of that they say "focused light like this is not collimated."

Didn't stop them from making the allegation as part of their -- as part of their infringement contentions.

So that's why we need to construe this. And if you have any specific other proposals, I think you understand our position. Our position is a collimated beam can never have focusing or converging light. It can have beam divergence.

THE COURT: Right.

MR. PIVOVAR: And we accept that. Our construction does that. It's not necessarily in the same words. Substantively, that's what it does. So form over substance.

THE COURT: Okay. Thank you.

MR. PIVOVAR: Thank you, Your Honor.

THE COURT: Just wait a second, please.

All right. Can you point me to anywhere in the written description where there's any statement that to the effect that collimating or collimation, if that's a word, would allow for convergence?

MR. DENNHARDT: Yes, Your Honor. It's right here. Its' talking about substantially the same diameter. It could have said "substantially the same diameter but without any convergence," but it didn't say that. It just said "substantially the same diameter."

Right? So it's not limited to just divergence, as they want to say.

THE COURT: Okay. Do you have anything else?

MR. DENNHARDT: I think that's what I have at my fingertips. Again, I would note that the file history itself specifically says --

THE COURT: The file history, I just want to start right now with the written description of the patent.

MR. DENNHARDT: Sure.

THE COURT: Hold on.

MR. DENNHARDT: Yes, Judge.

THE COURT: What is a divergence angle?

MR. DENNHARDT: I believe, Judge, a divergence

angle talks about, if you assume what perfect parallelization would be, divergence angle refers to how far a beam might diverge beyond what you would assume to be a perfectly parallel beam.

THE COURT: Is there such a thing as a convergence angle?

MR. DENNHARDT: I believe there is, Your Honor, yes.

THE COURT: What's etendue mean?

MR. DENNHARDT: Your Honor, it is a complex optical term that does refer to the amount of which a beam varies from a perfectly parallel beam. I would have to defer to an expert on that, which I admittedly am not.

THE COURT: Okay. Would you agree that that's generally a good definition for etendue? Is that how you pronounce it?

MR. DENNHARDT: Etendue?

THE COURT: Yeah.

MR. PIVOVAR: I didn't catch all of it, but --

THE COURT: What do you think etendue means?

MR. PIVOVAR: So etendue is a concept that is a measure for how large a light source is, multiplied by how wide the beam divergence is.

So it kind of gets to this notion of, like, how far -- when we talked about a point source, you have

a point source and it's going to have all these rays of light that are emanating from a single point. It's going to come out like a cone.

Whereas, if you have etendue in a bigger light source, it's not going to come to a point on the cone, it's going to have light emitting from different things. Etendue is a concept that tries to quantify the distinction between what would be a point source and a larger source and how the light is shaped and what implications that has on collimating light and things like that. So it is a concept.

THE COURT: You had that word in one of your slides, right, etendue?

MR. PIVOVAR: It's in the patent. That's how they describe it.

THE COURT: Well, I just want to know, when you have it in your slide, is that from Column 44 of the patent or is that from something else?

In other words, is it from another source or is it from the written description of the patent?

MR. PIVOVAR: It's certainly in the written description of the patent.

THE COURT: I know it is. In your slide, when you say "it" --

MR. PIVOVAR: Yeah, I'm sorry.

THE COURT: -- is the slide that you had where you used the word "etendue," was that taken from the patent?

MR. PIVOVAR: I believe what I did was I put up a part of the file history of '412 patent. So it's not a slide I have. I used that as a depiction and in that, when I read it, it referred to etendue. It did.

I don't believe -- the specification certainly says that. I just want to be clear that -- I think what you may be referring to was when I was reading from the file history on an actual physical document.

MR. DENNHARDT: Judge, if I recall, I believe it was from the file history of a patent that is not asserted in this case.

THE COURT: Right.

MR. PIVOVAR: But it's a concept, and we would agree that experts would get into that. But it's sort of a proxy for saying I have an extended light source. I have, like -- I have a big light source. It's not a point source. That's going to complicate things. We have to adjust for that.

THE COURT: Do you agree that there's such a thing as a convergence angle?

MR. PIVOVAR: I don't know that I've ever seen

that, but that doesn't mean it doesn't exist, Your Honor.

THE COURT: But you know what a divergence angle is?

MR. PIVOVAR: Yes. I mean, that's in our slides and part of our proposed construction, how we mapped it out.

MR. DENNHARDT: Judge, I do just want to note that this notion that there can be no convergence is not something that -- excuse me -- is not something that is supported by the references. And the notion that a collimated beam can have some convergence or divergence is not something that we made up.

I know, Judge, that you are less interested in the extrinsic evidence, but this is from the Fiber Optics Standard Dictionary. This is their reference. It says, "Collimation has minimum possible ray divergence or convergence."

So the notion that a person of skill in the art would believe that collimation precludes any convergence is inconsistent with the Fiber Optics Standard Dictionary that Cytek, itself, cites for you.

So this is not an idea that we created. I know that my friend on the other side doesn't like this portion of the file history, but it's true. And it's supported by both intrinsic and extrinsic evidence.

THE COURT: His point, I think, is that it's inconsistent with prior statements made in the file history, and they are very self-serving. That's what happens in these file histories.

As you get later patents, you try to get later patents on an earlier written description. To be quite candid, I see it all the time. There's manipulation. And I think it really calls into question how much you can rely on the subsequent file history.

I think if the subsequent file history is inconsistent with earlier statements, it's telling.

MR. DENNHARDT: Judge, I don't -- first of all, I don't think that we're talking about a long variance here. I think that the portion of the file history that we're talking about here comes just a few months after the version that they like. Right?

So it's not like this was something that was prosecuted ten years ago, and then ten years later, we said, oh, and by the way, it's limited convergence or divergence. It was within a very short period of months.

The second point that I would make is it's not inconsistent. I started, again, from the outset that collimation and focusing are two different things, and we don't dispute that. Right? And that's what that

portion, I think, that he has --

THE COURT: They seem to be saying that they would have an expert who would say absolutely when optics experts are talking about collimation, they would say you can't get perfect parallel waves.

Is it waves? Is that the right word?

MR. DENNHARDT: Rays.

THE COURT: Rays. Sorry.

You can't get them perfect, consistent with what was discussed with the Patent Office, right, in these patents.

And there will be some divergence. But it sounds like their expert is going to say, but no one would agree that there's going to be convergence.

MR. DENNHARDT: And, Judge, if that's what their expert wants to say, we would love to cross him with the Fiber Optics Standard Dictionary.

THE COURT: That's what strikes me. The word "divergence" is used. "Divergence angle" is used in the patent. "Convergence" is not used. Actually, hold on one second.

"Converge" is used once in the patent, but does not appear to be, its usage, to be in any way helpful to construing this term.

MR. DENNHARDT: Judge, I think the right

result here is where you started initially, which is, I think this is going to be a battle of the experts as to what amount of convergence, if any, or divergence, if any, is acceptable.

And the right way to approach this is, don't construe the term. Allow the experts to battle it out at trial. Again, we'll ask them, "Well, tell us why the Fiber Optics Standard Dictionary says you can have some convergence."

Right, the standard dictionary says you can have some convergence. But you, expert, saying that we don't infringe, says, oh, actually we think it can't. And we'll have that battle at trial.

THE COURT: But I do not find satisfactory the nearly parallel language that you have in there. I think it's --

MR. DENNHARDT: Understood, Judge. And I would just, again, point back to the file -- excuse me -- the written description that says "substantially the same diameter."

It doesn't limit it to convergence or divergence. It just says "substantially the same."

And there are numerous cases that say you can talk about substantially. Why can you do that? Because a person of skill knows how much substantially is

appropriate.

And that includes in connection with substantially parallel in a Delaware case decided by Judge Andrews in which he said "substantially parallel is not indefinite because a person of ordinary skill would know what 'substantially parallel' means," and that's exactly the case here.

THE COURT: All right. Hold on a second.

Okay. Thank you.

MR. DENNHARDT: Thank you, Judge.

THE COURT: All right. I'm not going to construe this term. I'm going to give it its plain and ordinary meaning.

I do think it raises, though, serious concerns about indefiniteness. I also think there may reach a point where I would have to construe it, but I could only do so after hearing expert testimony.

So we'll go to trial, and I will do what I did last week, or two weeks ago in a patent trial, they all go together, where I left it to construe it at trial. Both sides had some risk when they went to trial.

In that case, turns out I didn't have to construe it because of the way the expert testimony came in, and we let the jury decide, based on plain and

ordinary meaning. And both sides agreed, before the case went to the jury, that we didn't need claim construction. So that could happen here.

Let me say a couple things. I mean, I am very sympathetic to the defendant. And I think it's undisputed, first of all, that, one, you cannot achieve, at least in practice, if not even possibly in this world, absolute parallel rays. And yet, it's also undisputed that "collimating" is a concept that's understood by the experts in this field.

I think it's undisputed that there can be some divergence in rays that are recognized as collimated. Very much disputed whether you could have convergent angles in a collimated beam.

The patent, in various instances, discusses substantial or substantially collimated beams. If you look at, for instance, Column 2, 26 through 29, the lines of Column 2, they discuss a device capable of collimating a light beam from an extended light source over an extended distance without significantly expanding the beam diameter.

So consistent with there can be a divergent angle, that sentence seems to me to suggest that you can have a collimated beam with some divergence. But it's without significant divergence. And then that begs, you

know, the question is, is it possible to have any really definite sense of what this patent is claiming.

And then in the claims, but I put less stock in the claims on this, there is discussion about substantially the same diameter. I find it more probative, the written description citation I just gave. But I don't think I have to go further on that because I think it's pretty much undisputed about divergence.

And I just think that it's likely this will boil down to a question of degree that the experts will have differing viewpoints on; i.e, what degree of divergence and, perhaps, convergence could be accepted and still have a collimated beam.

So I am just going to give it its plain and ordinary meaning. I'm not going to construe it, and we'll have a battle of the experts.

All right. Next?

You are going to have to pick it up.

MR. KHAN: Thank you, Your Honor. So based on the parties' discussions, next term will be "optical element."

THE COURT: Okay.

MR. KHAN: And so on this one, Your Honor, the term is "optical element." It is situated within a larger term. Optical element configured to detect.

And, essentially, the difference is between whether the optical element term has a well-understood meaning in the art or whether it should be construed as means -- means-plus-function. And then they contend if it is means-plus-function, then there's no appropriate construction. And it's indefinite.

So, really, when we're talking about sort of whether it's means-plus-function term or not, in the context of this claim, there's really, Your Honor, two issues. The first is whether optical element is a structural term. The second is whether that structure performs the function.

So we're going to take those in pieces, Your Honor, if you don't mind. So we'll start with the claims.

As I said, "optical element" is situated in this claim as "optical element configured to detect," but there are other terms, Your Honor, where optical element is used differently.

So, in other terms, there's a collimating optical element that's coming later in our discussion as a later-to-be-construed term. Collecting optical element, focusing optical element.

But here, we're talking about an optical element configured to detect. If the Court were to find

that optical element is a structural term that confers structure, that would have consequences for all of the terms.

If the Court were to find that optical element is not a structural term, then we would have to deal with each term on its own.

THE COURT: Right. Which I am inclined to do.

So what I need you to do to help me out, what concerns me, or rather why I am inclined to say it's a means-plus-function, is because I'm not sure I see sufficient structure in the patent claims.

And you would agree as a matter of law, right, I must start with, there must be sufficient structure in the claims. Correct?

MR. KHAN: Correct.

THE COURT: Okay. So let's quickly go, where in the claims is there sufficient structure?

MR. KHAN: Right. So the structure in this claim is the optical element term.

THE COURT: Right. Now, you're referring right now to Claim 13 of the '443 patent, correct?

MR. KHAN: Correct.

THE COURT: And it reads, quote, "An optical element configured to detect scattered light emitted by the particle in the flow channel and illuminated by a

light source," unquote.

Where is the structure there in that claim?

MR. KHAN: Right. And so first we start with the presumption. It is not --

THE COURT: You're going back. I'm already on the law. Come on. We know what the law is. Let's get to sufficient structure --

MR. KHAN: So here is the structure --

THE COURT: Time out. Time out. Because we are short on time. And I'm being generous with time.

The question is, and I think you already agreed to this, you have to show that there's sufficient structure in the claim.

MR. KHAN: Yes.

THE COURT: If it's not going to be means-plus-function. Correct?

MR. KHAN: Correct.

THE COURT: Okay. Let's go to that. You just had the language up.

MR. KHAN: Right.

THE COURT: Where is the structure?

MR. KHAN: The words in the claim were "optical element," and here, Your Honor, widely understood, just like we talked about how the word "collimate" and "collimation," two experts could have an

understanding of what that means, "optical element" is defined in dictionaries, treatises. We cited at least a half dozen dictionaries and treatises where "optical element" is a well-understood structural term.

Just like the Federal Circuit said, with respect to fasteners. And in that case, Your Honor, fasteners, the Federal Circuit said, you know what's a fastener? A rivet, a button, Velcro. Lots of different classes of structures. And here, "optical element" is a well-understood structural term that says, basically, I know what I'm talking about.

In each instance, it's a component that's acting upon light. And the -- and the specification confirms that. It basically says, hey, here's an optical element. It could be a lens. Just like the definitions that the experts would understand. It could be a concave mirror, just like -- as in the experts' definitions can understand. And then there are other aspects, like prisms that are described in the specification.

So --

THE COURT: So it could be anything having to do with optics. This has got to be any kind of structure having to do with optics, right?

MR. KHAN: It's a structure that acts upon

light and, as understood widely in the glossary of optical terms, Your Honor, in the Fiber Optic Standard Dictionary, these are definitions of the term to understand that it's a class of structures.

And it's a class of structures that's going to have -- just like fastener, it's going to have various -- a class of structures. And the -- but it's defined in the dictionary, in the treatises in exactly the way that you would expect, just like fastener, just like all the other Federal Circuit cases that we've given you.

THE COURT: All right. Now, bottom line, really what the real term here is element. Its element in the field of optics. That's really what the structure is, right?

MR. KHAN: No, Your Honor. We would -- it's optical element. An optical element is an understood structural term. And there are cases that talk about how element is not always a nonce term if it's a well-understood structural term.

So there's cases talking about article feeder -- feeder element. Even in Delaware, Your Honor, there's -- there are -- by the way, there are other cases, including one in Delaware, that says optical element means an element that refracts -- refracts,

deflects, diverts or focuses light beams.

Another Delaware case, Your Honor, the physical structure, namely one or more optical elements or lenses.

THE COURT: All right. I'm just going to rule. Do you have anything else, any other structure you want to point to?

MR. KHAN: In the claims, Your Honor, in that claim, it's optical element.

THE COURT: Okay. That's not sufficient. I can explain why. You want to say anything else?

MR. KHAN: Would you like me to address the means-plus-function, corresponding structure, or --

THE COURT: Well, you want to finish the other claims? Because, right, you have to have sufficient structure in the claims. We've agreed on that.

MR. KHAN: Correct.

THE COURT: For Claim 13, you have, the only structure you point to is the optical element.

Is there any other structure in any of the other claims besides optical element you want to point to?

MR. KHAN: In these claims, no, Your Honor.

THE COURT: When you say "these claims," are there other claims?

MR. KHAN: Not ones that are at issue before you. That's correct, yeah.

THE COURT: Okay. Right.

So, in other words, what I'm getting at is, there's nothing in any of the language, it's not in your brief, but I thought maybe there's a lot of stuff coming up in this hearing that wasn't in the briefing. So I'm thinking, well, maybe there's something else you want to rely on.

But just to be clear, the structure in the claims you're pointing to are the words "optical element," unquote.

MR. KHAN: Correct, Your Honor.

THE COURT: Okay. So I don't think that that's sufficient structure. I think element is a nonce word, and when I read the claims, it's very clear to me element is being used as a generic nonce word that, basically, it operates as a substitute for means, it does not connote structure.

And while I think you could make that determination solely from the intrinsic evidence, I think the defendant has offered a persuasive affidavit that demonstrates that optical element does not connote a class of structures.

I think, bottom line, is that it essentially

means, I believe, Mr. Khan, with all due respect, I think if you read back what you said, it's effectively a structure used within optics. And it can refer to, it sounds like, almost any device used within optics.

And what the key here is that the language of the claims makes clear that it's functional because what's being claimed is an optical element configured to do something, to perform a function. And there's no other structure in the applicable claims besides optical element that reveals what that structure would be.

So I think the presumption against means-plus-function is overcome, and I think it's easily overcome. So if you want to talk about corresponding structure, we should do that.

MR. KHAN: Let's do that.

So, your Honor, if we go to the corresponding structure. So for the corresponding structure, on this -- on Claim 13, 17, and 18 of the '443 patent. So the issue is whether the function is detects scattered light emitted by the particle and flow channel illuminated by a source.

And so the corresponding structure in the specification that is directly linked to those functions is the composite microscope objective. And, here, the -- here's an example where it says "The composite

microscope objective provides into an optical fiber for transmission into WDM."

THE COURT: I didn't hear you. What?

MR. KHAN: "The composite microscope objective is the corresponding structure."

And I skipped over a number of slides, but I'm going to go back to them because -- sorry -- because the issue here, Your Honor, is what does the word "detect," mean?

And, essentially, if the word "detect" means what they say it means, which is to say that an optical -- that the structure has to be something that converts into an electrical light into a signal, like an electrical signal, right? That's what they're saying.

The detect -- that's not what detect means in the art. "Detect," in the art, just means to find or discover something, to determine the presence. And that's exactly what the cases say, which is that the claimed function of displaying information could be implemented using off-the-shelf code."

THE REPORTER: Can you speak up.

MR. KHAN: Sorry.

So -- and then we've given you two cases, Your Honor, the *Intel* case and *Tech Licenses* cases. Here is the Federal Circuit saying that the

specification doesn't have to tell you how to modify the structure or how to configure the structure to perform the function. You just need the corresponding structure to be linked to the function. You just need to recite some structure.

And here, the -- here's the linking statement in the specification, Your Honor. "The composite microscope includes a concave mirror and aberration corrector plate. This allows a contact buildup and the illumination and detection of light scattered from and fluoresced by the object in the viewing zone may be conducted from the same side of the microscope objective."

This is exactly what the claims is talking about. This is the function and it's being described as being done by the microscope objective.

So this is exactly what the cases are talking about. And I think at the end of the day, what the real dispute is about what does "detect" mean. Because if we're right on what detect means, Your Honor, then there's no dispute that this would be a corresponding structure in the specification. And that's why I was focusing on that so much.

THE COURT: Can you stop there for a second?

MR. KHAN: Yes.

THE COURT: Because I agree. That is what this dispute boils down to, it's really what does "detect" mean, right?

MR. KHAN: Yes.

THE COURT: Okay. Hold on.

Their argument is that the objective that's disclosed is collecting, right, gathering an imaging?

MR. KHAN: Right.

THE COURT: Right? That's what they're pointing to?

MR. KHAN: Exactly.

THE COURT: Now, but you're pointing to the language here that --

MR. KHAN: We would say, Your Honor, that the specification directly relates and links the microscope objective to detection.

THE COURT: Okay.

MR. KHAN: Not just gathering, collecting, and imaging. Directly relates it to the detection of the light.

And they are going to point you to some passages much later in the specification that also talk about other detecters, but this passage is focused on the microscope objective. And the microscope objective is described as performing the function of detection of

light.

So it's not just gathering, collecting, and --

THE COURT: Is there anything else besides...

Hold on a second.

MR. KHAN: There is more in the specification.

THE COURT: Just hold on. Just give me a second.

MR. KHAN: Yes, Your Honor.

THE COURT: Is that in your brief?

MR. KHAN: It is, Your Honor.

THE COURT: Where?

I'm looking at Page 70, 71.

MR. KHAN: It's, for example, at Page 56.

THE COURT: Fifty-six?

You're right. You got it. Okay. I was focused on later down. All right.

All right. Let me hear them on this corresponding structure.

So that seems to me, Mr. Chen, your big argument was wrong function. It's not detection.

MR. CHEN: That's correct.

THE COURT: But this passage, I hadn't focused on it, to be honest.

MR. CHEN: Yeah.

THE COURT: I mean, it seems to address detection. No?

MR. CHEN: It does not, Your Honor. And, actually, I'm glad we can start right here.

So let's actually go to our slides, please. Seventy-five, please.

So this is on Page 70 of the claim construction brief. And this is what BEC points to.

They say in their brief that the specification explains that an objective, an optical element, gathers and images light and that detection of that light may be conducted from the side of the microscope objective.

That's what they included in their brief, Your Honor. That's misleading. They left out a key word. The same side. The same side of the microscope objective. Why does that matter?

THE COURT: Hold up.

Okay.

MR. CHEN: It's not the side of the objective that's detecting light. All this passage says in the specification is that detection occurs on the same side of the microscope objective.

What does that mean? This is the microscope objective 60. We talked about this a little bit

earlier. It has a concave mirror 415 in the back, it has an aberration corrector plate 414 in the front there, at the top.

THE COURT: Yeah.

MR. CHEN: Light passes through, it hits the flow cell. Light scatters and it also fluoresces.

The only things in the specification that perform detection are 408 and 413. Those are the only passages in the specification that talk about detection.

The passage that we looked at earlier where it says that detection of light scattered and fluoresced, scattering and fluorescing, may be conducted from the same side of the microscope objective.

All that means is that you're having detection of side scattered light and fluorescent light on the same side of the microscope objective.

An objective is a piece of glass or plastic. It does not detect. We cited to numerous dictionaries -- optical dictionaries, not the Collins Dictionary -- optical dictionaries that say that a detector in Exhibit 45 is an example -- and I can just put it on the Elmo here.

THE COURT: It's all extrinsic evidence, though, is the bottom line.

MR. CHEN: Oh, I agree. I think the intrinsic

evidence makes it very clear that the only things that could be a detector are 408 and 413, Your Honor. Scattered detecter, side scatter detecter.

But the extrinsic evidence says a detector -- and there's multiple dictionaries that we cited to, Exhibits 45 through 50, that say a detector is a device that generates an electrical signal when illuminated by light. Electrical signal.

THE COURT: Okay. Hold on. I want you to just look.

So the passage you're referring to where they -- where you think they're misleading, it's relying on Column 5, 62 to 65. Okay?

But earlier on, when I said was it in your brief, it was a different cite, it was 56. So it starts at Line 56. Okay. But it's right before this passage, but it must incorporate it. It's 56 to 65. All right.

Okay. Let me hear from them.

MR. KHAN: Your Honor, the notion that we sort of misquote that quote is totally wrong because I pointed you to Page 56 of the brief. And we had exactly the same side. The language that Mr. Chen is saying we apparently omitted, we did no such thing.

THE COURT: Hold up.

Okay. So he's focused on what you said on

Page 70. And today, you've pointed me to Page 56. But let's not get into worry about whether there was a fast one or not. I think the bigger issue is this:

Now that I've had the benefit of oral argument, and I skipped over 56 or just didn't see it as much, focused more on 70; although, it's in 70.

Well, bottom line, put all that aside. I'm looking right now at Column 5, Lines 56 to 65. Okay? That's the only language that you are pointing to for structure, right?

MR. KHAN: No, Your Honor. We're also pointing to --

THE COURT: Before you go further, I don't see the structure there. It seems to me what's being discussed in those lines of the patent is the fact that some light emanates from the objective and is then detected by another structure. And, I mean, can you point to -- do you even dispute that?

MR. KHAN: Yeah, we do, Your Honor.

THE COURT: You're telling me the objective actually detects it?

MR. KHAN: Because, Your Honor --

THE COURT: Hold up. Because this I do want, I'm going to press you.

MR. KHAN: Yes.

THE COURT: Because it's one thing to say that the objective allows for the detection by something else. And I think that would be a credible statement. It's another thing to say that it is the objective within this language here, Lines 56 to 65, that detects it.

Which one are you saying?

MR. KHAN: If we think of "detect" as gathering, collecting, imaging, right, then it is, in fact, detected.

THE COURT: Okay. Where, what source would tell me to equate...

In the context of this patent, in this discussion here specifically --

MR. KHAN: Right.

THE COURT: -- you're telling me that "detect" is referring to a function performed by the objective?

MR. KHAN: Your Honor, if we're talking about what the word "detect" means, the claims, themselves, tell you that it's an optical element that detects. And so we have to under- -- we have been in a world where it's a possibility of an optical element detecting.

Here, the composite microscope objective does collect imaging light, it does gather an imaged light, and it is gathering light from or fluoresced by the illuminated particle. That is tracking almost exactly

the language of the claim -- of the claims that we were just talking about. And so --

THE COURT: Wait, wait, wait. Hold on.

The claim we were talking about?

Claim 13, right?

MR. KHAN: Correct.

THE COURT: Sorry.

What claim again? Is it 13?

MR. KHAN: '443 is Claim 13.

THE COURT: Okay. By the way, for the record, I was referring by the lines of the patent in Column 5. I was referring to the '532 patent. I think everybody has used the written description of the '532 patent.

MR. KHAN: '582 patent.

THE COURT: '582. Sorry. Apologize.

MR. KHAN: Yes, Judge.

THE COURT: Yeah. So --

Hold on.

So you want to go to the language of the claims. Is that what you wanted to do?

MR. KHAN: I wanted to -- we can do that, Your Honor. So here's the language of the claim. So the language of the claim is "Optical element configured to detect scattered light emitted by the particle in the flow channel" --

THE COURT: Right.

MR. KHAN: -- in the light source. If "detect" means --

THE COURT: Hold on. What's the light source?

MR. KHAN: The light source here would be the laser.

THE COURT: Okay. And then the particle?

MR. KHAN: The particle is -- particle generally means any particle, but here it would be the cell.

THE COURT: The cell of the light wave that's in the objective, correct?

MR. KHAN: No. The cell that's flowing through the flow channel.

THE COURT: It's flowing through. And then the scattered light that's emitted by that particle occurs in the objective, right, the scattering of the light?

MR. KHAN: Correct. The scattered light is collected by the objective.

How do we know that? The specification itself says, you know, the composite, the microscope objective gathered light scattered from --

THE COURT: Right.

MR. KHAN: -- or fluoresced by --

THE COURT: Right.

MR. KHAN: -- the illuminated particle.

THE COURT: Right. In other words, what's going on in the objective is the scattering and the fluorescing of the light of the particle, correct?

MR. KHAN: Correct.

THE COURT: You call it illumination, if you want to, as well.

MR. KHAN: Of the illuminated particle.

THE COURT: Right.

MR. KHAN: In tracking the language of the claim --

THE COURT: Right.

MR. KHAN: -- if "detect" is understood to mean just discover or find, right, if we go back to the claim -- sorry. Here. "An optical element configured to discover or find scattered light emitted by the particle in the flow channel illuminated by a light source, that's the composite microscope objective. That's what it's doing. That's its function. It's clearly linked in the specification.

The trick is, what my colleague on the other side is saying is, no, no, no, detect means you have to convert it, convert the light into a signal.

That's not necessarily what detect means.

Detect just means find or discover something. And that's what the composite microscope objective is doing in this context.

It is -- and it's doing it with exactly the elements that are described in the claim. It is doing it with respect to the scattered light emitted by the particle in the flow channel and illuminated by the light source.

THE COURT: So then, you're saying Claim 13...

Put up Figure 25. Or not Figure 25. Put up the first figure in the patent.

All right. Now, 90. What's 90?

MR. KHAN: 90, I believe, is the fiber optic cable to the WDM.

THE COURT: What's 852?

MR. KHAN: I'm sorry?

THE COURT: What's 852?

MR. KHAN: I believe that's a fiber optic cable. That's the --

THE COURT: Yeah. I thought you just said that's 90?

MR. KHAN: Oh. 852 is -- 90 appears to be the -- oh, 90 is the WDM. Sorry.

THE COURT: The WDM.

MR. KHAN: Right.

THE COURT: What's the WDM do?

MR. KHAN: It is --

THE COURT: What's it called? What does "WDM" mean?

MR. KHAN: I means wavelength division multiplexer.

THE COURT: Okay. And what does it do?

MR. KHAN: It's basically the optical components that are going to convert the optical signal into an electrical signal to determine what is present in the flow cell.

THE COURT: To determine what is present in the what?

MR. KHAN: In the flow cell.

THE COURT: In the what? What did you say?

MR. KHAN: The flow cell. So the --

THE COURT: Flow cell. In the flow cell. Yep. I know what you mean. I just wanted to get your exact words. Okay.

MR. KHAN: The --

THE COURT: Hold up. Hold up.

MR. KHAN: Sure.

THE COURT: And just for definitions, what's a cytometer?

MR. KHAN: What's that?

THE COURT: Cytometer?

MR. KHAN: A cytometer is an instrument to -- to analyze cells. A flow cytometer --

THE COURT: Hold on. I just want to --

MR. KHAN: Sure.

THE COURT: It's an instrument to analyze cells.

MR. KHAN: So cyto means cell.

THE COURT: Yep.

MR. KHAN: And meter means, basically, an instrument.

THE COURT: And is WDM a cytometer.

MR. KHAN: WDM would be a component of a cytometer, yes.

THE COURT: And it, what it does is it determines what's present in the flow cell?

MR. KHAN: It's giving you --

THE COURT: Literally, I wrote that down. That's what you --

MR. KHAN: The electrical signals --

THE COURT: That's what you incidentally, and the record will reflect this, I just read back what you said to me. You said a WDM, it determines what is present in the flow cell. That's your definition.

Are you backing off that?

MR. KHAN: No, no, no.

THE COURT: Okay.

MR. KHAN: What I'm saying is it's giving you the electrical signals to tell you what's in the flow cell, yes.

So that's why we need --

THE COURT: Hold up. Hold up.

MR. KHAN: Yeah.

THE COURT: Now, this figure that we're pointing to, Figure 1, what does it depict? Does it depict a cytometer?

MR. KHAN: The full flow cytometer, correct.

THE COURT: Okay. All right. Now, where is there scattered light?

MR. KHAN: Scattered light is here. So --

THE COURT: Hold up. You're just doing that. Just tell me just point. Is it in the objective?

MR. KHAN: Correct, Your Honor.

THE COURT: It's in the objective.

MR. KHAN: Yes.

THE COURT: Is it anywhere else?

MR. KHAN: I don't think there would be -- there might be -- there's going to be scattered light in the system generally because light is, as we've talked about, not perfect, right? So it's being scattered

everywhere.

But in the context of what the patent is talking about when it's trying to capture the scattered light, the scattered light --

THE COURT: When the objective is trying to capture. So the objective captures the scattered light?

MR. KHAN: That's exactly what the specification says, Your Honor.

THE COURT: Okay.

MR. KHAN: And I pointed --

THE COURT: Does the scattered light leave the objective?

MR. KHAN: The scattered light is -- yeah, it's captured and then it leaves the objective, yes.

THE COURT: Where does it go to?

MR. KHAN: It then -- the objective then leads to the WDM.

THE COURT: Right.

MR. KHAN: To the fiber optic cable.

THE COURT: That's what I thought.

MR. KHAN: Right.

THE COURT: And the scattered light, though, exists before the objective. Is that what you're saying? It exists in the laser?

Like what precedes? There's a laser beam

going into the objective, right?

MR. KHAN: Right.

THE COURT: Yeah. You're saying there's scattered light in the laser beam?

MR. KHAN: It's not going to be in the laser beam.

THE COURT: Okay.

MR. KHAN: So when the laser hits a cell, that -- and when it -- so there's a flow cell, so cells are going through the flow cell.

THE COURT: Yep.

MR. KHAN: And when a laser beam hits a cell, it's going to create scatter --

THE COURT: Right.

MR. KHAN: -- and fluoresces light.

THE COURT: I thought this, but maybe I'm wrong. I thought the laser beam hit the cell when the cell's in the objective?

MR. KHAN: Correct.

THE COURT: Okay.

MR. KHAN: Yes.

THE COURT: So the scattering occurs in the objective?

MR. KHAN: The scattered light is occurring inside the objective, which collects the scattered light,

yes. Gathers up the scattered light.

THE COURT: And then the scattered light leaves the objective to go to the WDM, right?

MR. KHAN: Yes.

THE COURT: Okay. And then the WDM, now you want to use the word "determines."

What in that, is in that scattered light in order to determine what is present in the flow cell, right?

MR. KHAN: Right. It's going to -- the WDM is converting light into signals, electrical signals.

THE COURT: Yep.

MR. KHAN: That are telling you what's in the cell, right.

THE COURT: Right. And you need that in order to determine what's in the flow cell? You need that change into electric signals, correct?

MR. KHAN: In a flow cytometer, yes, Your Honor.

THE COURT: Right.

MR. KHAN: Right.

But in the first instance --

THE COURT: Hold on.

MR. KHAN: Oh, yes.

THE COURT: And where is the flow channel in

Figure 1?

MR. KHAN: Inside the microscope objective. So it's this.

THE COURT: Does it leave it?

MR. KHAN: Does it leave?

THE COURT: You're saying and the flow channel only exists within the objective? Is that what you are saying?

MR. KHAN: In the exemplary embodiment, yes, the flow channel is inside the composite microscope objective.

THE COURT: All right. So doesn't include, for instance, the 90, right?

MR. KHAN: It would not.

THE COURT: You don't think it does. All right.

And then 852, how is 852 different than 90?

So you agreed, actually, 90 you agree is the WDM?

MR. KHAN: The fiber optics plus the other semiconductor components here and the --

THE COURT: Yes.

MR. KHAN: -- mirrors and the filters that we spent a lot of time talking about, together those would be qualified as the WDM.

90 is, Your Honor, if we look at -- it's 28, Column 12.

THE COURT: Yeah.

MR. KHAN: It says Column 8, 9, a wavelength division multiplexer 90.

THE COURT: Right. Okay.

MR. KHAN: For optically processing scattered and/or fluoresced light received from the fiber, 852.

THE COURT: And it's received from the fiber, which is 852.

MR. KHAN: Yes.

THE COURT: And so all the scattered light that leaves the objective, goes through that 852 to the WDM?

MR. KHAN: It should, yes.

THE COURT: Well, you're counting the 852 as being part of the WDM, I guess. Are you?

MR. KHAN: The specification considers it as part of the WDM, yes.

THE COURT: Okay.

Mr. Chen, why do you think the person responsible for drafting this patent chose to use the verb "to detect"?

MR. CHEN: I do think it's imprecise, Your Honor. Your Honor is correct to focus on the claim

language which I have up here.

The parties agree that the functions are to detect scattered light. Scattered light. And then also the second function is that there needs to be an outputting based on the detected scattered light, the light to the WDM via the optical fiber, Your Honor.

And so Your Honor is correct to focus on the claim language. And when we look at only the specification, only the specification, the only components that perform detecting are -- of scattered light.

There's -- as I said at the beginning there's both scattered light and fluoresced lights. The only components that detect scattered light, as required in the claim language, are 408 and 413. That's the forward scatter light detector and the side scatter detector. And that's in the specification passage at Column 53, Lines 63 to Column 54 --

THE COURT: And you would agree, they're part of the WDM?

MR. CHEN: They are not actually part of the --

THE COURT: You don't think they are?

MR. CHEN: They are not, actually, Your Honor, so I wanted to actually clarify that point.

I think what counsel said for Beckman Coulter actually supports our position in that the -- there's another set of detectors in the WDM that performs detection. Not all the components, but for example, the detectors that detect the fluoresced light --

THE COURT: Right.

MR. CHEN: -- the fluoresced light goes into the WDM, into the optical fiber.

THE COURT: Not the scattered light?

MR. CHEN: That's right. Not the scattered light. So --

THE COURT: So where does the scattered light go? I mean, in Figure 1, where does it go?

MR. CHEN: Yeah. So Figure 1, which is similar to Figure 31, so if you wouldn't mind, I'll just use Figure 31, Your Honor. It's very similar to Figure 1.

THE COURT: Okay.

MR. CHEN: Okay. So the scattered light, it scatters, and it fluoresces. And the scattered light, there's forward scattered light and side scattered light.

THE COURT: Right.

MR. CHEN: And it's not depicted on this Figure 31, but if you go to Figure 38, it shows that the forward scattered light is then going to be reflected off

of a relay element to the forward scatter detector 408, and the side scattered light is going to be side scattered to a detector 413.

THE COURT: Right. But, I mean, it seems to me that this figure, is it 31? Where's Figure 31?

MR. CHEN: Yeah, Figure 31.

THE COURT: See, Figure 31, like that's what they show on the front page of the patent.

MR. CHEN: Yeah.

THE COURT: I mean, you think that's the real invention here.

MR. CHEN: Yeah.

THE COURT: But I don't see 408, I don't see how they fit in. Where would they fit into this?

MR. CHEN: Yeah. I mean, where they would fit in, Your Honor, and if -- you're right that it's Figure 1, I believe, that's shown at the -- on the face of the patent.

THE COURT: Oh, 31. Okay.

MR. CHEN: It's very similar to Figure 31. It's exactly as Figure 38 describes it, right, the light is coming from a laser source, 412, here.

THE COURT: Right.

MR. CHEN: The laser shines onto the flow cell. The light, then, both scatters and fluoresces.

THE COURT: I get that, but I'm just curious, like, why isn't it in the Figure 1 or the Figure 31?

MR. CHEN: Yeah, I'm know not sure why the patentee didn't include it there.

I think because they're mainly focused on the WDM as their alleged invention. They're not as focused on the forward scatter detectors or side scatter detectors, but the claim language says that there are optic elements that perform the claimed functions to detect scattered light, and then also to output that scattered light to a fiber optic to the WDM, right? That's what it says.

THE COURT: Uh-huh.

MR. CHEN: Uh-huh.

THE COURT: But to be clear, you don't dispute...

I mean, like, because, for instance, Claim 1 talks about the WDM having a set of detectors.

MR. CHEN: Uh-huh.

THE COURT: Not only do you not dispute but you're saying, you're telling me don't get misled. That's got nothing to do with scattered light.

The detection of Claim 1 has nothing to do with scattered light, right? I just want to be clear.

MR. CHEN: Yes, there's a separate -- there's

a separate claim element, for example, in Claim 18 of the '443 patent, there is a separate recitation to detectors that detect fluoresced lights.

To be clear, you can have some configurations where the scattered light does actually go into the WDM. I'm not saying that's not possible.

But at least based on this example, this exemplary embodiment, this does not appear to be part of the WDM. It appears to be outside. And there certainly are real-world systems, including Beckman Coulter's, where the scatter detectors are outside of the WDM.

But regardless, it's not the objective.

THE COURT: It's not. That's the point.

MR. CHEN: Yeah. That's the most important point is the objective is not doing any detection whatsoever. That's not possible.

Our position is that an optical element does not detect, therefore, these terms are indefinite. However, if there is any structure that performs the claimed functions, it is these detectors, 408 and 413.

THE COURT: Okay.

All right. Do you want to say anything else?

MR. CHEN: No, thank you, Your Honor.

THE COURT: All right.

You can come up but give me a second.

MR. KHAN: Sure.

THE COURT: Go ahead.

MR. KHAN: Your Honor, I'm just going to put Figure 1 back up. So if we can go to that.

THE COURT: By the way, I've been saying Figure 1. And when I do it, I was referring to the front page of the patent. I don't know if it's really called Figure 1. I might be wrong.

MR. KHAN: It is Figure 1 --

THE COURT: It is? Okay.

MR. KHAN: -- of the '582 patent, right.

THE COURT: Okay. And it looks a lot like Figure 31.

MR. KHAN: It is quite similar --

THE COURT: Okay.

MR. KHAN: -- in the overall layout.

So, Your Honor, this is the overall layout of the system. And what's happening is there's a viewing zone here on the flow cell. The composite microscope objective surrounds it.

And what does the specification tell us?

Can we go to 83?

The specification tells us, and I am quoting here, "The composite microscope objective further includes a concave mirror configured to gather light

from -- scattered from or fluoresced by the illuminated particle."

That is exactly the whole point of the objective is to find the light, to collect the light, including the scattered light. The specification directly tells you that --

THE COURT: It actually doesn't. I'm sorry. You know what? I mean, I'm not definitely saying you're wrong.

MR. KHAN: Right.

THE COURT: Why did you use the word "detect"? I just, I'm trying to figure out why you decided to use "detect." Especially when, do you dispute 408 and 413 are detectors?

MR. KHAN: We don't dispute that they're detectors, Your Honor, but I haven't --

THE COURT: I mean, isn't that a problem for you?

MR. KHAN: Well --

THE COURT: Do they detect scattered light?

MR. KHAN: They are part of -- they are forward scatter -- they are different components in the system.

So if we can go back to the Elmo.

So here is 408. So exactly, Judge, as you

said, they're sort of an optional component in the system that's basically --

THE COURT: What are you reading from, what column?

MR. KHAN: I'm reading from Column 52.

THE COURT: Which patent are you on?

MR. KHAN: On the '582 patent.

THE COURT: All right. And you are on Column 52?

MR. KHAN: Fifty-two.

THE COURT: Okay.

MR. KHAN: And just to discuss Figure 37, which is, I think, what most of what they've been pointing to. And the elements are 408 and --

THE COURT: Yeah, by the way, before you go further, what's 45? I could not find 45 in the patent anywhere. It says 45, right?

MR. KHAN: This is exactly what Figure 37 is, what they have been pointing to.

THE COURT: Well, wait. So go look at...

You help me out. I don't see a 45 in Figure 37. My clerk and I were, like, knocking our heads.

MR. KHAN: Oh. I think it's just described as including 408 and the other components.

THE COURT: Well, can you show me? We couldn't find it.

MR. KHAN: Yeah.

THE COURT: Just go to Figure 37.

(Speaking simultaneously.)

THE COURT: I don't see a 45.

MR. KHAN: Yeah. I think you might be right, Your Honor. There may not be --

THE COURT: How much do you guys pay your patent examiners? I mean, you know...

MR. KHAN: I think you're right. You're right, Your Honor.

THE COURT: So 45 doesn't mean anything even though you referred to it a bunch of times?

MR. KHAN: Well, it's described insofar as it needs a number, and so then it's used throughout to talk about. But it's -- basically, Your Honor, it's an axial loss detention system.

THE COURT: Right.

MR. KHAN: So it's separate from the gathering of the scattered light that the composite microscope objective.

It's not core to the -- to what's going on in the patent, essentially. It's an optional system. In fact, it's even described as "in accordance with some

embodiments of the --

THE COURT: Well, when you say it's optional, maybe it's what's being claimed in Claim 13, I mean, for all I know.

MR. KHAN: I think, Your Honor -- if we can go back to the slide.

To me, Your Honor, it does just come down to the word "detect." And I think if detection requires conversion into a signal, it's true that the objective doesn't do that.

But I don't think that's what detect means. And indefiniteness is a really high bar.

THE COURT: Hold on. Hold on.

But you've got an actual disclosure in the patent that you've just pointed to, which it actually defines as a, quote, "axial light loss detection system."

MR. KHAN: Yes, Your Honor.

THE COURT: You would think that light loss might cover scattered light. Seems pretty reasonable to infer, right?

MR. KHAN: No doubt, Your Honor.

THE COURT: Okay. So no doubt. That's good.

Then it says, so if you want to see a diagram of that, that system, look at Page 37 and it's labeled

45.

I look at 37, I don't see anything.

But I'm guessing because Figure 37 is, in fact, the axial light loss detection system that's being discussed.

MR. KHAN: I believe it is, Your Honor.

THE COURT: Okay. And that apparently is in accordance with some embodiments in the present disclosure, right?

MR. KHAN: Yes.

THE COURT: Okay. Now, why isn't that what's claimed in Claim 13 of the '443 patent?

MR. KHAN: Your Honor, that's because it's an optical -- it needs to be an optical element.

THE COURT: Yeah. But, I mean, you said that an optical element can include a concave mirror, right, or lens, right?

I mean, can't an optical element include...

I mean, what doesn't it include? I mean, what precludes it from including 408 and 412 in Figure 37?

MR. KHAN: Because it's the element that's core and responsible for gathering light in the first instance. Gathering the scattered light --

THE COURT: No, it's detecting the scattered

light. It didn't say gathering, it says detecting it.

MR. KHAN: In the claim, yes, Your Honor, right.

THE COURT: Yeah. But that's what I've got to go by is what's in the claim.

All right. Defendant, are you good with the corresponding structure? What do you think the corresponding structure should be?

MR. CHEN: Our position, Your Honor, is that it should be indefinite.

THE COURT: Yeah.

MR. CHEN: But if it's not indefinite, then the corresponding structure has to be the specific 408 and 413 detectors disclosed in the specification for detecting scattered light.

THE COURT: Yeah. All right. Hold on one second.

MR. KHAN: Your Honor -- go ahead.

THE COURT: Hold on a second.

Go ahead, Mr. Khan.

MR. KHAN: Your Honor, it just can't be those detectors. And I'm going to show you why. And here it is.

Here's Claim 18, one of the claims that they're seeking to construe, right. And one or more

optical fibers. Each optical fiber configured to receive light from the optical element.

So the optical element is providing the light to the fiber. If --

THE COURT: Well, time out. Time out.

So I'm construing Claim 13 right now, optical element.

MR. KHAN: This is one of the terms that -- it's 13, 17, and 18.

THE COURT: No, time out.

Right. But I actually think we have to go claim by claim. And I thought you even said that. You said if I'm going to go means-plus-function, then we have to go claim by claim. I actually agree with you.

MR. KHAN: I misunderstood.

THE COURT: I'm on Claim 13.

MR. KHAN: I see. I misunderstood, Your Honor.

So I thought we were talking about 13, 17, and 18 as a group. But --

THE COURT: I don't think so. I mean, I think the whole point is, I think optical element is a nonce word. I mean, well, element is.

And I think, that's why, precisely, I think it's really a functional claim. They are all functional

claims, and I'm on Claim 13. And so I'm looking at the corresponding structure to Claim 13.

I mean, maybe you don't dispute it. I mean, it makes sense to me that it's 408 and it's 413 is the corresponding structure to Claim 13.

Do you dispute that?

MR. KHAN: We do, Your Honor.

THE COURT: Okay. Well, then, I need to take a little bit of a time out, and I will come back.

MR. KHAN: Okay.

THE COURT: But I am only, right now, looking at Claim 13. And I am going to take like five minutes, that's it, and then we're going to have to end pretty soon and we're just not going to finish today. We'll talk about what to do about that. All right.

(Whereupon, a recess was taken.)

THE COURT: Have a seat.

All right. So for Claim 13, I studied the language. I think the only possible corresponding structure for Claim 13 would be 408 and 413.

Did I get the numbers, right? Just to make sure. Yes. Okay.

I have not been persuaded by the plaintiff that collecting or gathering constitutes detection, but the patent, the claims, distinguish... the claims, and

especially if you look at Claim 1, I think it's undisputed that 408, 413, and the WDM detect. And so that's the only possible corresponding structure I can see with 413. Sorry, with Claim 13.

Okay. Now, the problem becomes, as I look at the other claims, I can't even come up with a structure. But, again, especially, you know, I'll give you a chance to just brief that question only, the corresponding structure on the remaining claims that claim an optical element.

And I've got to say, from studying the claims, I'm inclined to conclude there is no corresponding structure that I see.

All right. Now, folks probably know, I normally start my *Markman* hearings at 9:00 for a reason, not 1:00, so we didn't finish.

Now, first of all, does my optical element ruling that it's means-plus-function, how does that affect some of the other disputed claim terms?

MR. KHAN: Your Honor, on the other disputed claim terms, so we're just going to have to take it claim by claim --

THE COURT: We are.

MR. KHAN: -- to figure out what the corresponding structure is going to be, just as, Judge,

you suggested.

THE COURT: Okay. All right. And then, so let's talk about what's the best way to proceed, given this.

Where are you in terms of the case, Mr. Chen?

MR. CHEN: Your Honor, I don't think the rest of the case schedule is going to be feasible given what we have coming up.

So we are supposed to have a narrowing of claims 21 days after a *Markman* order. We've got close of fact discovery October 8. That's coming up quickly. Expert reports are supposed to be November 5, and then trial is August of 2026, Your Honor, so --

THE COURT: Well, that should not have to move.

MR. CHEN: Yeah.

THE COURT: Now, hold on. Let's look at the calendar.

You all can sit. Thank you, though.

All right. What about September 17, can we pick up then, and then hopefully dispense with everything else?

MR. CHEN: You mean for the claim construction?

THE COURT: To finish this hearing, yep. And

you can brief this stuff beforehand, and I can have the benefit of looking at what you wrote.

MR. CHEN: I'm supposed to take my parents, who are in their late 70s, to Hawaii, Your Honor.

THE COURT: Oh, okay. Well, that's a good thing. We don't do that. Won't risk all that.

Where are you from?

MR. CHEN: California. And I've got a jury trial coming up between September 5th and the 11th here in Delaware, Your Honor, before Judge Hall, the Netgear case.

THE COURT: Where are you from, Mr. Khan?

MR. KHAN: New York, Your Honor.

THE COURT: All right. When are you taking them to Hawaii? I mean, when do you get back?

MR. CHEN: It would be the -- it's a short trip. It's the 7th -- oh, actually, I'm sorry, Your Honor. The 17th. The 17th would work, Your Honor. I'm taking them the following week, the 24th. The 17th would work.

THE COURT: Just think about that, you'll have that off your shoulders. It'll be incredible.

Which island are you going to?

MR. CHEN: We're going to go to the big island.

THE COURT: All right. All right. Mr. Khan, can you do the 17th?

MR. KHAN: Yes, Your Honor, that will work.

THE COURT: All right. Let's do the 17th, 9:00 a.m.

Okay. Now, the briefing, I'll leave it up to you. You know, I think the sooner, the better. I could have more time to look at it.

But remember, you can have experts at these hearings, and I sometimes wonder why folks don't.

But nobody's stopping you from having experts if you thought it was important. And what I would say about that is, especially have them ready, so that if I all of the sudden say, gee, I really could benefit from an expert, you know, it's there.

So I'm not saying you need to bring your experts, but I'm just saying if you thought it was advantageous to do it, it's up to you.

Actually, we haven't had any depositions, though, of experts, right?

MR. CHEN: We have not.

MR. KHAN: Correct, Your Honor.

THE COURT: Okay. But, and as I say, I'm not saying I need any experts, right? But okay. Then we'll continue on the 9th, but I've already ruled about

"optical element" is means-plus-function.

Corresponding structure for Claim 13 is to be found in Figures 408 and 413.

If anybody can find what happened to Number 45, let me know, in Figure 37.

Yes?

MR. KHAN: One clarification, Your Honor. I think the 408 or -- it would be 408 or 413? Because it would be alternative structures, each of them reciting a curved mirror or optical element that would perform a detection function, but I don't know if that's the way the Court...

(Reporter clarification.)

THE COURT: Hold on.

MR. KHAN: I didn't understand -- I just wanted to clarify how, Judge, you were ruling on that.

THE COURT: That's a good question.

MR. CHEN: Your Honor, one of them performs forward scatter detection, the other one performs side scatter detection.

THE COURT: And those, I think it's undisputed that they're the only two types of detection that exist, right?

MR. CHEN: For scattered light --

THE COURT: For scattered light that --

MR. KHAN: Right. But, Your Honor, the claim just says detects scattered light. It doesn't say forward or side.

And so I think the correct way to think about 408 or -- would be to be either 408 or 413, because both of them in the axial loss system are described as detecting scattered light. So it could be one or both. It doesn't have to be both.

THE COURT: Oh, I see.

Yeah, well, actually...

MR. KHAN: It could be either one is kind of what I'm saying.

THE COURT: What do you think?

MR. CHEN: I think it has to be both. The embodiment talks about both. It collects both, forward scattered light and side scattered light.

MR. KHAN: They're both scattered light. And one is detecting --

THE COURT: All right. You know what? I'll tell you what, we can address that September 17th.

MR. KHAN: Okay.

THE COURT: So, I mean, what I would say is this. What I'm going to go back to decide that is I am going to look at the patent, and if the patent discloses a system that has both of them, it's got to be both.

But I'll look at the law too. You know, that's what I'm saying.

So you can brief that. You've got supplemental briefing. If you want to...

I told you to discuss the corresponding structure, so if you want, you can discuss, only with respect to Claim 13, whether it's one or both. That's it. Nothing else. It's going to be one or both.

MR. CHEN: Understood, Your Honor.

THE COURT: It's going to be...

MR. CHEN: Either or both.

THE COURT: It's going to be either or both.

MR. KHAN: Yes.

THE COURT: Thank you.

MR. CHEN: Understood, Your Honor. Thank you.

MR. KHAN: And on the briefing, Your Honor, given that these are their terms, we think we should have the opportunity to respond.

Would it make sense to have them go first, and then us to respond, and we can make a joint submission to you together?

THE COURT: No.

MR. KHAN: Okay.

THE COURT: I want simultaneous. Then you've really got to decide what you're going to do. So pick a

date. You want to pick it now, let's pick a date, and we'll pick a time.

By the way, I mean, I think one thing for...

Like is Claim 13 no longer indefinite because now that there is structure?

MR. CHEN: I think it's indefinite, Your Honor.

THE COURT: Oh, you still think it's indefinite?

MR. CHEN: That is our position is that we think it's indefinite, Your Honor. Can we brief that further?

THE COURT: Well, no, but what I wanted to talk...

MR. CHEN: Because it's not an optical element. A detector is not an optical element.

MR. KHAN: I think, Your Honor, the basis for their argument that it was those detectors was that they had optical elements in them, they had mirrors and things like that, and so I think it wouldn't be indefinite, but --

THE COURT: I mean, my question would be is, on whether it's indefinite is who cares what it's called? If it's a nonce word, and it's means-plus-functioning, means-plus-function claiming, they could have called it a

zebra. I mean, they could have said it's a zebra configured to do this and this, and you seem to be okay with now that the functions are undisputed, and I agreed with you that if I'm interpreting it this way, means-plus-function, it's detection and the only structure that corresponds is 408 and/or 413, that part, and/or, to be decided.

I'm like why isn't it indefinite anymore?

Now, the other claims, you might be right.

MR. CHEN: Because one of ordinary skill in the art looking at the term "optical element" wouldn't understand that that can perform the function of detecting --

THE COURT: I thought that's the whole part --

MR. CHEN: -- and that's -- that's the confusion.

THE COURT: I thought the whole point of functional claiming is that that they're allowed to claim functionally, and I think, like, it seems to me, at that stage, for you to prove it indefinite, assuming there's a corresponding structure, you'd have to say it's impossible.

See, I mean, it seems to me that if you want to say that a means-plus-function claim is indefinite, you've got to do it on the absence of a structure.

MR. CHEN: I understand what you are saying, Your Honor.

THE COURT: You think about it, but I don't know how you could pursue an indefiniteness claim if I'm going to construe this means-plus-functioning and limit the function to the 408 and 413.

MR. CHEN: For that particular element. There's other elements with different functions --

THE COURT: That's a different story. In fact, like I said, I actually have already volunteered, I'm looking at them, and I'm thinking I don't know how there's any corresponding structure to some of these other ones.

MR. CHEN: Right. Understood.

THE COURT: So that's where it's fair, I think, for you to say indefiniteness could still be pursued.

MR. CHEN: Understood.

On the briefing, Your Honor.

THE COURT: Yeah, dates.

MR. CHEN: The dates. And then also you had mentioned early summary judgment briefing on the issue of indefiniteness --

THE COURT: Well, I think we should wait and see what happens with these --

MR. CHEN: Okay.

THE COURT: -- with these claims. I mean, pretty much, I think what's going to happen at this hearing on September 17 is for the remaining claims for "optical element," if we don't come up with a structure that's corresponding, don't I then say it's indefinite?

MR. CHEN: Yes.

THE COURT: Isn't that what happens?

MR. KHAN: We think there is going to be a corresponding structure.

THE COURT: I know you do. But, I mean --

MR. KHAN: Right.

THE COURT: -- in fairness, if I don't, if I say I don't see that there's a corresponding structure here, then I think we're on to indefiniteness. I mean, I think it is indefinite at that point, right?

MR. KHAN: If there's no corresponding structure to the means-plus-function term.

THE COURT: It's indefinite.

MR. CHEN: It is.

THE COURT: Okay. Good. We agree on that.

All right. So briefing, when do you want?

MR. CHEN: The 10th, Your Honor.

THE COURT: The 10th of what?

MR. CHEN: September. It's a week before.

THE COURT: Yeah. Does that work for you?

MR. KHAN: Yes, Your Honor. That works fine.

THE COURT: Okay. All right. Get it in.

MR. CHEN: Page limit, Your Honor?

THE COURT: Yeah, I mean, look, Ms. Upton clerked for me. She'll tell you, if it's long, you know. Look at the way I write my opinions. If you've got to say so much, it's kind of shame on you. And you lose stuff. I lost stuff with this briefing, in fairness. I mean it's a good briefing, actually, but, I mean, I lost stuff. I lost your...

You know, I was on Page 56 because I am looking at 70. You repeat yourself a lot, it's whatever. Short is better. So, I mean, the great briefers are short briefers.

So I can set a limit if you want. What do you think?

MR. CHEN: We'll be reasonable. Thank you, Your Honor.

MR. KHAN: Yeah, we can work that out, Your Honor.

THE COURT: Work it out.

MR. KHAN: Yes.

THE COURT: You're better off being short because, I mean, you are going to hurt yourself if you're

not.

MR. CHEN: Understood.

MR. KHAN: Understood.

THE COURT: Okay. All right. Anything else?

MR. CHEN: We'll figure out the other dates. September 17, Your Honor, just because there's the October 8 fact discovery deadline and expert reports.

THE COURT: Right. By the way, is the claim narrow destruction...

Destruction? Freudian slip that was very worthwhile.

Is that moot? Do I have to resolve the objections to Judge Tennyson's report?

MR. CHEN: It's moot.

MR. KHAN: Your Honor, I think --

THE COURT: We've got the claim narrow anyway. As soon as I'm done, you know...

MR. KHAN: I think now it's moot.

THE COURT: Okay.

MR. KHAN: So I think you can -- Your Honor, you don't have to rule on that.

THE COURT: Okay. Good. I'll enter an order tomorrow saying, hearing from the parties, denied as moot.

MR. KHAN: So, Your Honor, just to be clear on

what the briefing is supposed to cover --

THE COURT: Yeah, that's good. That's fine. Let's be really clear. Go ahead.

MR. KHAN: So for Claim 13 of the '443 patent, whether it's either or both --

THE COURT: Yep.

MR. KHAN: -- 408 and 413.

THE COURT: Yep.

MR. KHAN: And then for the other optical element terms.

THE COURT: Yep.

MR. KHAN: And each claim, optical element, collimating optical element, collecting optical element, focusing optical element.

THE COURT: You need to identify corresponding structure.

MR. KHAN: Corresponding structure.

THE COURT: Right. I think that's right.

I mean, is there anything...

And the reason why, to the extent you've already done that in the briefing, I think you need to... I'm giving you the opportunity to rethink. You know now which way I've ruled. I mean, I've said it's means-plus-function. So, you know...

In other words, are there any, were there any

other terms that you thought should be means-plus-function that would not be encompassed by optical element?

MR. CHEN: No, Your Honor.

THE COURT: Okay. All right. And then collimating, that's plain and ordinary. I've construed that.

And what else was there?

MR. CHEN: First and second.

THE COURT: Oh, first and second. Oh, so first and second, I've construed that with regard to filters, but then if there's follow-up, you want to address that?

MR. CHEN: Yes, we do.

THE COURT: Okay. So then that's what they're saying is --

MR. KHAN: That's what I was trying to clarify is making sure that we understood that there was going to be clarification on that.

THE COURT: Yep. First and second, you just need to address the particulars elements.

MR. KHAN: Other than the filters.

THE COURT: Right. That should be really, really short.

MR. CHEN: Understood, Your Honor.

THE COURT: Okay. Anything else?

MR. CHEN: No, Your Honor. Thank you.

MR. KHAN: That's it. Thank you.

THE COURT: Okay. Thanks, all.

(The proceedings concluded at 5:21 p.m.)

CERTIFICATE OF COURT REPORTER

I hereby certify that the foregoing is a true and accurate transcript from my stenographic notes in the proceeding.

/s/ Bonnie R. Archer
Bonnie R. Archer, RPR, FCRR
Official Court Reporter
U.S. District Court